IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND
GREENBELT DIVISION

_____)
)
UNITED STATES OF AMERICA,   )
)
        Plaintiff,   )
)Docket Number
             vs.   )8:19-cr-00348-PX-1
)
ALAKOM-ZED CRAYNE POBRE,   )
)
        Defendant.   )
_____)

TRANSCRIPT OF EVIDENTIARY HEARING
BEFORE THE HONORABLE PAULA XINIS
UNITED STATES DISTRICT COURT JUDGE
MONDAY, AUGUST 11, 2023 AT 1 P.M.

APPEARANCES:

On Behalf of the Plaintiff:

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Official Court Reporter
United States District Court, Greenbelt, MD

1   I N D E X

2   PLAINTIFF'S CASE IN CHIEF -----------------------------

3   WITNESS: PAGE

4   CORY MILLS

13

14   EXHIBITS

15   GOVERNMENT EXHIBITS --

16   NO.   DESCRIPTION   RECEIVED
     1   15
17   2   15
     3   15
18   4   15
     5   15
19   6   15
     7   15
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1   THE COURT: Good afternoon, everyone. You can all

2   have a seat.

3   MR. MORGAN: Calling the case of United States of

4   America versus Alakom-Zed Crayne Pobre, Criminal Case No.

5   PX-19-348, and we're here for the purpose of an evidentiary

6   hearing. Michael Morgan on behalf of the United States.

7   Good afternoon, Your Honor.

8   THE COURT: Good afternoon.

9   MR. FINCI: Your Honor, good afternoon.

10   Richard Finci and Gar Robbins on behalf of Mr. Pobre, present

11   to my left.

12   THE COURT: Good afternoon.

13   Counsel, we are here for an evidentiary hearing.

14   Who's going to tell me how you all wish for this to proceed?

15   Government?

16   MR. MORGAN: Your Honor, thank you. So, we do each

17   have witnesses to present to the Court. I believe that it's

18   the defendant's burden to show at this stage that the Court

19   has made a finding that there was a substantial basis, and so

20   here we are for a Franks hearing.

21   And so I think the two issues are the Franks

22   hearings and the omissions and the statements that the Court

23   raised earlier, and also the purported systemic error side,

24   as well. And so I would propose that the defense call their

25   witness and then we call our witnesses, and then we go to

1   argument.

2   THE COURT: Well, let me understand the universe of

3   witnesses who are going to be called.

4   MR. MORGAN: Yes. I believe the defense -- they

5   could correct me if I'm wrong -- have one defense witness,

6   Mr. Miglianti. I have two witnesses, Trooper, now Corporal,

7   Mills and Dr. Brian Levine.

8   THE COURT: And Dr. Levine?

9   MR. MORGAN: Yes.

10   THE COURT: Defense, who do you want to call first?

11   MR. FINCI: Your Honor, it's interesting you led

12 out that way here this afternoon because, frankly, we were a

13 little unclear as to how you would want us to proceed today.

14   We're in sort of an unusual, I guess, setting --

15   THE COURT: Right.

16   MR. FINCI: -- for a Franks hearing, in that not

17 only has the Court found that there's a substantial

18 preliminary showing, but the Court had before it substantial

19 evidence to proceed on, and it's the evidence that we would

20 rely on to establish a Franks violation.

21   THE COURT: Well, I'm wondering one thing before

22 you continue.

23   MR. FINCI: Yes, ma'am.

24   THE COURT: I see that we probably have both

25 experts in the room, and Corporal Mills is not here; is he?

1 He's not in the room. He's not in the courtroom?

2   MR. MORGAN: That's correct. He's here but not in

3 the room.

4   THE COURT: I would ask the experts to step out so

5 we can have a -- I mean, I understand when the experts

6 testify, they could hear each other's conversations, but in

7 terms of the scope of this hearing, I'd like to talk about it

8 just with the lawyers. Thank you, gentlemen.

9   Okay.

10   MR. FINCI: So, we weren't clear, although we were

11 of the belief that your -- what you called them, provisional

12 findings, were that a Franks violation had occurred and that

13 had been shown with the evidence that it had already been

14 submitted to the court.

15   THE COURT: Well, I found that the hearing was

16 warranted. And what that means is I haven't made any

17 ultimate determinations, and certainly courts had hearings

18 and then deny the defense motion.

19   So it's just that you've rung the bell, I think,

20 enough to get this issue before me because of what I had said

21 previously.

22   I do have -- I still have -- it is an unusual case

23 in that essentially the way that the affidavit reads is that

24 to the reader, there's just no knowledge of this entire

25 computer system that's behind it.

1   And now you have raised, you know, significant

2   questions about its reliability, and the Government's

3   response is putting those to the side. At least one, maybe

4   two files of interest were, in fact, child pornography for

5   which the requester is more likely than not Mr. Pobre's

6   IP address.

7   But there's a whole lot of real estate between

8   those arguments and the facts that need to be -- yeah.

9   MR. FINCI: So given that --

10   THE COURT: Yeah.

11   MR. FINCI: -- we, of course, have a set of

12   exhibits. And I understand Mr. Morgan doesn't dispute or

13   object to the exhibits.

14   That if we were to go first and have some burden

15   here, the first thing we would do here is admit those

16   exhibits. The Court has seen them all --

17   THE COURT: Okay.

18   MR. FINCI: -- in the past. It includes the prior

19   testimony of Corporal Mills, which we would incorporate to

20   satisfy our burden of proof on these issues.

21   THE COURT: Right.

22   MR. FINCI: It has the testimony of Dr. Levine. It

23   has the so-called Freenet target summary. It has our

24   expert's report, which goes to the reliability side of our

25   argument here today.

1   THE COURT: Let me ask it this way, Counsel. If I

2   didn't -- if everything stood in equipoise and the Court

3   said, Listen, you could take the record as it is, or you

4   could amplify it, you'd each want to put on your witnesses;

5   right?

6   MR. MORGAN: Absolutely, Your Honor. Yes.

7   MR. FINCI: I wouldn't need to put on

8   Mr. Miglianti. I would expect that maybe Mr. Morgan would

9   want to Cross-Examine him. But what I would do is I would

10   submit his report.

11   THE COURT: Yeah, because I see where you're coming

12   from because the report basically -- this is how I see the

13   two reports, for what it's worth. And this is part of why

14   we're having the hearing.

15   The defense expert has blown a hole through the

16   reliability of this Excel spreadsheet. Corporate Mills

17   testified that's what he relied on to validate, and that he

18   needed three for probable cause.

19   So, that's a pretty strong showing. And, frankly,

20   Dr. Levine's report doesn't squarely address that issue, the

21   reliability of the Excel spreadsheet. Rather, he seems to

22   run toward why the three files of interest, at least

23   according to his independent analysis, are sufficient.

24   So, in that regard I hear you. I mean, that's what

25   you may want to do. I don't know. You might say, listen,

1 we're relying on the report and on the prior testimony. And

2 now, Government, the ball's in your court.

3   And if what you're saying is -- if I'm getting it

4 right, Mr. Finci -- is if after Dr. Levine testifies, you

5 believe that you need to call your witness or if you want to

6 call him, if you want to call the expert, then you can do so.

7 But at this point, it sounds like, Defense, you're saying you

8 rest on what you've already given me? Am I getting that

9 right?

10   MR. FINCI: Yeah. That's kind of where I thought

11 we were after the status.

12   But I would like to back up for a bit. Mr. Morgan

13 has something he wants to say. But I would want to back up

14 for a moment after him.

15   MR. MORGAN: They're welcome to call any witnesses

16 they want. It's not up to me. So, I don't have a position

17 on that. I just think I would like him to at least be

18 available because I certainly have a lot of questions about

19 the report that he wrote.

20   THE COURT: Okay. All right. And I hear it right

21 that you all are each going to have your experts in the room

22 when the other one testifies; right?

23   MR. MORGAN: Yes.

24   THE COURT: Okay.

25   MR. MORGAN: And so as long as he's available if I

1 | need to call him.

2 | MR. FINCI: So, Your Honor, we would submit

3 | factually on the eight exhibits that you now have before you,

4 | which unusually include extensive prior testimony which was

5 | on another subject but clearly overlapped with the subject at

6 | hand here today in a way that was anticipated at the time.

7 | THE COURT: Right.

8 | MR. FINCI: But works out perfectly it was there.

9 | If I could back up for just a second before I turn

10 | it over to Mr. Morgan.

11 | THE COURT: Sure.

12 | MR. FINCI: I want to be clear. I think you

13 | already recognize this. We're here on two separate issues,

14 | the way we see it.

15 | The first issue is the Franks issue. And if the

16 | Court finds that there were misrepresentations or material

17 | omissions that were -- that have the elements of

18 | intentionality and materiality to it, that the Court could

19 | stop right there and the Court could excise from this search

20 | warrant the material that was -- that should be excised as a

21 | result of those Franks violations and then re-examine the

22 | search warrant. And I would submit that once the Court did

23 | that, there would not be probable cause and the remedy would

24 | be exclusion of the evidence.

25 | The second issue we have here today, if the Court

1 didn't proceed on the Franks issue in that manner as we

2 discussed, reliability issue; and as we've indicated, as

3 we've been discussing, the expert has shown, we think fully

4 and completely, that the validation tool which Trooper Mills

5 testified previously he is required to use before even

6 initiating an investigation that might lead to a search

7 warrant does not validate anything. It's erroneous. It is

8 prone to false positives because it doesn't test the formula

9 that Dr. Levine has indicated. And specifically the

10 excluding factors is what it doesn't test. It doesn't test

11 the data.

12   THE COURT: Right. I get it. But what's that

13 second point going to? It's going to the *Herring* argument?

14   MR. FINCI: That's an interesting thing. That's

15 the *Herring* side of it. That's the *Herring* argument.

16   THE COURT: And the Government's response to that

17 is unlike *Herring*.

18   MR. FINCI: Negligence versus gross recklessness.

19   THE COURT: Or, in fact, even though the validation

20 system was flawed, it got it right here. And unlike *Herring*,

21 where the warrant -- the invalid warrant system actually

22 produced an erroneous result.

23   So we're going to have to talk about that as a

24 matter of law.

25   MR. FINCI: It's arguable whether it got it right

1 here, but nevertheless --

2   THE COURT: But that's my point, right. Dr. Levine

3 says that in the report. But the report -- I mean, I have

4 questions about it, so.

5   MR. FINCI: So, anyway. That's where we think we

6 are after your provisional rulings that you stated on

7 June 16th of 2023, we're prepared to go wherever the Court

8 leads us, what the Court needs to hear, given the extent of

9 evidence already in the record.

10   THE COURT: It's your motion. It's your motion. I

11 think it's ultimately your burden. I made that preliminary

12 finding that a Franks hearing was warranted.

13   MR. FINCI: Okay.

14   THE COURT: But that doesn't get you to the

15 Promised Land; right. You have to demonstrate, actually,

16 that there was a knowing or reckless material to probable

17 cause omission. You've given me the evidence that you want

18 me to consider in this binder. What I'm hearing you say is,

19 for now at least you'll stop there.

20   MR. FINCI: Yes.

21   THE COURT: And then the Government will call its

22 witnesses. And you'll assess along the way. Am I getting

23 that right?

24   MR. FINCI: That's where Defense is at this point,

25 Your Honor.

1   THE COURT: Okay. Mr. Morgan?

2   MR. MORGAN: I agree that there's two sides of it.

3   There's the *Franks* side and the *Herring* side of it, right.

4   But I did want to clarify something that he's talking about,

5   you would need to excise stuff from this warrant. I think

6   that it's the opposite, that if it's the omissions, you need

7   to be adding what was missing into the warrant to see if

8   there's probable cause.

9   It's extremely different and appropriate in this

10 case to add it in. We'll get there in argument, I suppose.

11 But I don't want -- I don't agree with the framing of that

12 argument. And so I wanted to just put that out there.

13   THE COURT: I think that the devil's going to be in

14 the details about what exactly is the material commission or

15 omission.

16   So, why don't we hear the -- I hear your point,

17 though. I mean, you've both raised valid points. This is

18 not your garden variety case or search warrant. And these

19 issues have come in, in a very strange posture.

20   But with that, why don't we get the evidence in and

21 then I'll hear you all. I certainly won't be able to rule

22 today. But you all probably -- past is prologue. You know

23 that I'm not ruling from the bench on these -- on the

24 ultimate question. I'm going to look at it after we're done.

25 Okay.

1   MR. MORGAN: Thank you, Your Honor. Your Honor,

2   United States calls Corporal Cory Mills.

3   May I step out?

4   THE COURT: Sure.

5   MR. MORGAN: May I also bring in Dr. Levine, Your

6   Honor?

7   THE COURT: Do you wish for both of your experts to

8   hear all of the evidence?

9   MR. FINCI: Yeah, that's fine.

10   THE COURT: So your expert, as well. Are you going

11 to bring in --

12   MR. FINCI: Yes. I will bring in.

13   THE CLERK: Corporal Mills, please walk towards me,

14 and if you would stand right here to be sworn. Please raise

15 your right hand.

16   CORY MILLS

17 having been called as a witness and having been duly sworn, was

18 examined and testified as follows:

19   THE CLERK: Please have a seat in the witness box.

20 And watch your step as you enter. And if you would please

21 speak loudly and clearly into the microphone. It is

22 adjustable.

23   THE WITNESS: Okay. Perfect.

24   THE CLERK: State your name for the record and

25 spell each name.

1   THE WITNESS: Corporal C-O-R-P-O-R-A-L, Cory

2 C-O-R-Y, Mills M-I-L-L-S. And my ID number is 6293 with the

3 state police.

4   THE CLERK: Thank you.

5   DIRECT EXAMINATION

6 BY MR. MORGAN:

7 Q.   Good afternoon, Corporal Mills.

8 A.   Good afternoon.

9 Q.   Where are you employed?

10 A.   I'm currently employed with the Maryland State Police.

11 Q.   How long have you worked there now?

12 A.   Just over 10 years.

13 Q.   And what is your current role?

14 A.   My current role within Maryland State Police is the

15 Criminal Enforcement Division, Western Region Investigators

16 as a supervisor and investigator.

17 Q.   And taking you back to 2018, what was your role then?

18 A.   My role in 2018 was a Trooper First Class with the

19 Maryland State Police Criminal Enforcement Division, Computer

20 Crimes Section.

21 Q.   And what kind of work did you do with the Computer

22 Crimes Section?

23 A.   Computer-facilitated crimes, primarily dealing with

24 child exploitation.

25   MR. MORGAN: I'm sorry, Your Honor. For the

1 record, we've agreed, but I would move for the admission of

2 Government's Exhibits 1 through 9.

3   THE COURT: All right. You've seen 1 through 9.

4 Any issue with that?

5   MR. FINCI: No, Your Honor. We've agreed to them

6 ahead of time.

7   THE COURT: All right. They're in.

8   MR. MORGAN: Thank you.

9   (Government's Exhibit Numbers 1-9 were received

10 into evidence.)

11 BY MR. MORGAN:

12 Q.   And how long did you do that kind of work?

13 A.   Approximately four years. September 2017 until

14 November 2021.

15 Q.   Okay. And do you remember working on a case involving

16 someone by the name of Mr. Pobre?

17 A.   Yes, I do, sir.

18 Q.   And when in that timeline did Mr. Pobre's case fall in

19 your work there with that section?

20 A.   Basically the first full year of my assignment there.

21 Q.   Okay. So, you've previously testified in this case; is

22 that right?

23 A.   That is correct, sir.

24 Q.   Okay. So, we've called you back to have you testify in

25 a much narrower set of topics.

1   But before I get there, I'd like to just address
2   one quick thing. In 2020, did you have a finding against you
3   that you violated department policy of MSP?
4   A.   Yes, sir. That is correct.
5   Q.   Okay. And can you tell us about the nature of that.
6   A.   Yes, sir. I had made a clerical error on a subpoena. I
7   believe, just off my memory, is that I should have put
8   2019 -- correction. 2020. And I put 2019. That impacted my
9   investigation in conducting a search warrant at the wrong
10   address. I did not know that until the completion. I
11   believe I actually had closed the case out.
12   It was unlike -- it just did not appear to be -- it
13   wasn't your standard case. It just didn't sit well. The
14   subject that I did the search warrant on had basically sent
15   me an email. He had an iPad broken upon return. And he was
16   dissatisfied with the state police services. It bothered me,
17   and I started reviewing my case.
18   I located that I had an error made in a subpoena,
19   which gave me the wrong information. Approximately within
20   five minutes of finding the mistake, I contacted my sergeant
21   to forward the issue up the chain of command. An
22   administrative investigation was conducted on me where I was
23   found to have conducted an inaccurate report.
24   Q.   And what was the nature of that type of case?
25   A.   That was also a child exploitation case.

1 Q.   Not Freenet?

2 A.   No, sir.

3 Q.   So, it didn't have anything to do with the technology

4 that we're here talking about today?

5 A.   No, sir. It was a clerical error.

6 Q.   What was the result of the finding?

7 A.   That I had lost one day of leave.

8 Q.   That's for having the typo in the subpoena that led to

9 the wrong address that you had in the warrant?

10 A.   Yes, sir.

11 Q.   Okay. Thank you.

12   So, now to the narrower set of topics that I wanted

13 to address today. I'd like to show you Exhibit 3. Do you

14 recognize this exhibit?

15 A.   Yes, sir. This is my application affidavit for the

16 Pobre investigation, sir.

17 Q.   Okay. And is that your signature there?

18 A.   That is correct, sir.

19 Q.   And the date?

20 A.   Yes, sir. That is correct.

21 Q.   And so is that the affidavit -- you said that's the

22 affidavit that you swore out in this case?

23 A.   That is correct, sir.

24 Q.   I'd like to direct your attention to the ninth page. I

25 believe it's marked down at the bottom on this exhibit as 31

1   of 245, but it's the ninth page within the affidavit, to the

2   paragraph under the bold section. Do you see that?

3   A.   Yes, sir. That is correct.

4   Q.   It starts with, "On Monday, June 25, 2018." Do you

5   follow me there?

6   A.   Yes, sir, I do.

7   Q.   What were your duties back on June 25, 2018?

8   A.   I was a TFC, Trooper First Class, with the Maryland

9   State Police Computer Crime Section, sir.

10   Q.   And how do you go about investigating those kinds of

11   cases?

12   A.   There's a multitude of different ways, both reactive and

13   proactive cases.

14   Q.   What's the difference between a reactive case and a

15   proactive case?

16   A.   A reactive case would be traditionally assigned through

17   the form of cyber tips from National Center for Missing &

18   Exploited Children.

19   Barracks would also receive complaints from

20   citizens.

21   And we might even receive a complaint via email to

22   our bureau email for a complaint, as well.

23   And then for a proactive case, it's essentially

24   you're assigning yourself a case that you haven't been

25   assigned. You're being proactive.

1   Q.   Okay. So is this a proactive case or a reactive case?

2   A.   This is a proactive case, sir.

3   Q.   Okay. And on that day, June 25 specifically, what was

4   your shift? What were your hours?

5   A.   Approximately 6 a.m. to 2 p.m., sir.

6   Q.   When you arrived to work, what did you do as far as it

7   relates to this case?

8   A.   I would access the internet web-based program of

9   ICACCOPS.

10 Q.   And so you had a computer there at your office?

11 A.   Yes, sir.

12 Q.   You logged into ICACCOPS?

13 A.   Yes, sir. That's correct.

14 Q.   And when you went to ICACCOPS, of which you testified

15 about before, what did you see when you got to the ICACCOPS?

16 A.   The primary -- at that time, it experienced a stylistic

17 change. But traditionally it would read at the top ICACCOPS.

18 There would be tabs, and there would be data relating to

19 suspected child exploitation investigations on the page.

20 Q.   And can you describe that page. What kind of data are

21 you talking about?

22 A.   It would present -- at one point in time it actually

23 presented like at least -- I don't know if it still does. I

24 no longer have access 'cause I'm no longer assigned in the

25 ICAC --

1   Q.   Just at that time.

2   A.   At that time it would show you like the top offenders

3   possibly for requesting child exploitation, as well as a

4   series of tabs to the left that would allow you to select

5   different avenues to investigate or deconflict cases.

6   Q.   Did you click on one of those?

7   A.   I did, sir.

8   Q.   Which one?

9   A.   The Freenet tab.

10   Q.   Okay. And then what did you see after you clicked on

11   the Freenet tab?

12   A.   When you click on the Freenet tab, you would get

13   directed to what's called the lead page within the Freenet

14   tab.

15   Q.   Okay. So, what is the lead page?

16   A.   The lead page gave data of requests of suspected child

17   pornography files being requested from IP addresses and the

18   file names, the dates, and some other information, as well.

19   Q.   Okay. Does it tell you anything about geographical

20   location?

21   A.   It does, sir.

22   Q.   What does it say?

23   A.   That the -- it was the State of Maryland, and I believe

24   for these, Columbia was what it was geolocating to at that

25   time, I believe, to the best of my knowledge.

1 Q.   And we're talking about "the times." What do you mean

2 specifically times?

3 A.   The start and end time of the observations of requests.

4 Q.   Okay. And so when someone's downloading a file, does

5 that happen instantaneously?

6 A.   No, sir.

7 Q.   So can it take time?

8 A.   Yes. I would approximate it could take minutes, hours,

9 days.

10 Q.   And so at the time that you're seeing -- when you're

11 reviewing -- when you're observing all this data there, it's

12 the start and end time of a download. Is that what you're

13 saying?

14 A.   I believe of a request. Of a request, yes, sir.

15 Q.   So, you mentioned files. What kind of files are we

16 talking about?

17 A.   They are flagged as suspected child pornography files.

18 You'd have to download the file to confirm that it is that,

19 and indeed it is child pornography -- or at least within the

20 State of Maryland a violation within the State of Maryland.

21 Q.   So, amongst the files is the file names, is that what

22 you're saying?

23 A.   Yes, sir.

24 Q.   How would you determine which of those file names to

25 investigate?

1   A.   To be honest, I would look at the files that I would

2   find to be indicative of child pornography files.

3   Q.   You mean, by the file name itself?

4   A.   Yes, sir. That's correct.

5   Q.   Without being graphic, can you give an example?

6   A.   If something had the term PTHC or Lolita or an age such

7   as 5 y/o, I would deem that to be a five-year-old.

8   Q.   And so does that -- why is that of importance to you?

9   A.   It would make me reasonably believe that the file would

10 have that type of material within it.

11 Q.   And so what happens when you click on the file name?

12 A.   When you click on the file name, it will take you what I

13 will refer to as the file name's, like, lead page, which

14 provides the IP address, the observation data, like the start

15 and end time of the requests. I believe it also gave like

16 the geographical location and the manifest key.

17 Q.   Okay. Now, when you click on that file, is that

18 associated with just one IP address?

19 A.   Yes, sir. That is correct.

20 Q.   Because before on the other -- the leads page where

21 you're observing the data, was that for multiple

22 IP addresses?

23 A.   Yes, sir. It's broken down into like I would refer to

24 it as rows. Like rows and columns. And the rows -- I

25 generally believe that the IP addresses were almost -- or you

1 could categorize them so that if it was the same IP address,

2 they could be in the same segment of the rows, like separated

3 by rows.

4 Q.   So, now that you've clicked on the file that's of

5 interest to you, that's pertaining to just one of those

6 IP addresses?

7 A.   Yes, sir. That is correct.

8 Q.   So, what were you looking for there when you clicked on

9 that?

10 A.   I was looking for files that I would deem to be

11 indicative of child pornography related to a specific

12 IP address.

13 Q.   Okay. And that, then, what would you do with that?

14 A.   So, I would click on the file name. And then I would go

15 to that leads page. I would then take the manifest key that

16 was provided in that leads page. I would take that and go

17 to -- what I could refer to as my Freenet program, the node,

18 like to go to download the file to confirm that it is indeed

19 child pornography.

20 Q.   So, you'd use that -- you talked about it in previous

21 testimony, but for this part of the investigation you used

22 the node to verify that it is, in fact, CSAM?

23 A.   To download the file. Yes, sir, that's correct.

24 Q.   And how long would that take?

25 A.   I cannot give you the exact time. I got to be honest.

1 I did not document it in my report.

2 Q.   Just in general. I don't mean specific.

3 A.   Prior to the search warrant, I downloaded the file.

4 Q.   How long would it take to download a file?

5 A.   It could take minutes, hours, days.

6 Q.   And why is it you needed to download it?

7 A.   To visually confirm that the file was specifically a

8 violation of child pornography in the State of Maryland.

9 Q.   Okay. So did you do that in this case?

10 A.   That is correct, sir.

11 Q.   Okay. So, you're familiar with the definition of child

12 pornography in the State of Maryland in 2018?

13 A.   Yes, sir. It has since changed, but in 2018, yes, sir.

14 Q.   So, what did you do next after you clicked on that file

15 name and started to download?

16 A.   Then I would move to basically repeating the steps of

17 downloading the other two files of interest.

18 Q.   And why did you do it two more times?

19 A.   That's how I was trained to do three files of interest

20 to use in the Freenet target summary that will come later.

21 Q.   For each of those, was it for the same IP address, or

22 did you pick different IP addresses?

23 A.   Same IP address, sir.

24 Q.   So, there's three files of interest all from -- each

25 from the same IP address?

1 A.   That is correct, sir.

2 Q.   You had at least begun. It could take some time, but

3 you could at least begin the downloading process of the file

4 itself to verify that it is, in fact, --

5 A.   Yes, sir.

6 Q.   But at that point you already verified that it's in

7 Maryland?

8 A.   Yes, sir.

9 Q.   And you've observed the date of that -- the date range;

10 right?

11 A.   Yes, sir. That's correct.

12   THE COURT: What's in Maryland? What is the "it"

13 in the question?

14   MR. MORGAN: The request.

15   THE COURT: Well, the IP address, which is what?

16   THE WITNESS: Yes, Your Honor. That the IP address

17 is geolocating in the State of Maryland.

18   THE COURT: Right. Okay.

19   THE WITNESS: At least preliminarily.

20 BY MR. MORGAN:

21 Q.   And you did subsequent investigation, we'll get to it,

22 but you did subsequent investigation to verify that address?

23 A.   That is correct.

24 Q.   Before submitting the affidavit?

25 A.   Yes, sir.

1 Q.   To the judge?

2 A.   Yes, sir.

3 Q.   And if you wanted to look at more recent activity versus

4 older activity, did you have the ability to observe in that

5 data various files and observation times to select?

6 A.   Yes, sir. You could set a date range, like within the

7 last 10 days, within the last 30 days, I believe.

8 Q.   Okay. So, you previously testified about that number of

9 files of interest, the three files of interest; do you

10 remember that?

11 A.   Yes, sir. That is correct.

12 Q.   Specifically it's in Exhibit 8 at page 198, but I'll

13 read it here. You were asked, "Why did you need three?" You

14 were asked why you needed three. You responded, "That is

15 what I was trained. I was trained that I need three. And

16 what I was explained is that it is to show that it is not an

17 isolated incident; that is basically -- that is to basically

18 assist in providing that the data is sound and correct." Do

19 you remember saying that?

20 A.   I do. Yes, sir.

21 Q.   Do you have a professional background in math or

22 computer science?

23 A.   No, I do not, sir.

24 Q.   So, when you previously testified that it assists in

25 providing that the data is sound and correct, did you mean

1 that scientifically and mathematically?

2 A.   No, I did not, sir.

3 Q.   What did you mean?

4 A.   I meant that for me, I use the Freenet target summary.

5 I was trained to use three files. I needed to use three

6 files to -- and have the data analyzed that I pulled from

7 ICACCOPS and to ensure that it came back -- that it passed

8 all three times.

9 Q.   Okay. So, you just used three because you were told you

10 needed to use three to operate the tool?

11 A.   Yes, sir. That is correct.

12 Q.   Is there a reason from an investigative standpoint why

13 you would want multiple files like that?

14 A.   One file would be a violation in the State of Maryland.

15 However, it was the best practice. It was what I was trained

16 in. It was a practice that we had in my unit that you didn't

17 want to just do one. You wanted to have more than one to

18 show that it was not an isolated incident.

19 Q.   And why don't you want to go after isolated incidents?

20 A.   It could have been a mistake.

21 Q.   And so why -- are you interested in going after isolated

22 incidents? Or are you interested in going after multiple

23 offenders?

24 A.   Multiple. Offenders that are committing it multiple

25 times, sir.

1 Q.   Thank you. And turning back to your affidavit.

2 A.   Yes, sir.

3 Q.   The same paragraph where you have -- you say here, "Your

4 affiant observed the IP address which is located there with

5 Freenet Monday, June 25, 2018, while reviewing data received

6 by law enforcement Freenet notes, your affiant observed the

7 IP address written there with the Freenet location ID written

8 there requesting blocks of suspected pornography files." Do

9 you see that?

10 A.   Yes, sir.

11 Q.   Okay. And what did you mean by that? What were you

12 observing there?

13 A.   I was observing -- excuse me. I was observing the data

14 captured on ICACCOPS, that IP address 71.246.207.59 was

15 requesting blocks of suspected child pornography files on

16 ICACCOPS.

17 Q.   Okay. And so that data that you were reviewing, that's

18 coming from the collection of data that you just described

19 previously with the various IP addresses, and then you

20 observed one of the specific IP addresses requested the

21 blocks that you're just about to talk about further in the

22 affidavit?

23 A.   Yes, sir. That is correct.

24 Q.   Okay. And so that's what you meant by the data that

25 you're reviewing and what you were observing?

1 A.   Yes, sir.

2 Q.   And so is that process described in more detail and in

3 the following three paragraphs about each specific file?

4 A.   Yes, sir. That is correct.

5 Q.   Okay. So let's go to the first -- the next paragraph.

6 It says "Your affiant observed that between Sunday, June 24th

7 at 1:35 p.m. UTC and Sunday June 24, 2018, at 1:51 p.m.

8 UTC, the Freenet note at that IP address requested 29 unique

9 blocks of the file and that it can be downloaded."

10   What exactly -- you say, "your affiant observed"

11 that. What were you observing?

12 A.   So, within -- so with the file name that says or begins

13 with 5 YO, on that lead page it would show you the split key

14 data of the requests of the first observation start, or the

15 start time, and the stop time of the last request.

16 Q.   Okay.

17 A.   And there would be at least 29 unique blocks displayed

18 of like -- by rows to show each request.

19 Q.   So, you saw all that data and you observed in there that

20 there were 29 blocks that were being requested?

21 A.   And I would just preface "unique." Yes, sir.

22 Q.   Unique. And, again, you were conducting this

23 investigation on which date?

24 A.   June 25, 2018, sir.

25 Q.   So, this is the 24th. So, is this activity that was

1 just happening that day before?

2 A.   The day before, sir. Yes, sir.

3 Q.   All right. And underneath of it there's the file name.

4 And another paragraph of description. Do you remember that?

5 A.   Yes, sir.

6 Q.   What is the description paragraph?

7 A.   The description paragraph is what I visually observed

8 myself whenever I successfully downloaded the file.

9 Q.   Okay. So, that could be a couple days later or it could

10 be a couple minutes later, depending upon how long it took to

11 download the file?

12 A.   Yes, sir. And if I'm being honest, I did not specify

13 the exact time of the successful download, but yes.

14 Q.   But once you did download it, you did observe it?

15 A.   Yes, sir.

16 Q.   And that description there, is that your words about

17 what --

18 A.   Those are my words of my observations of that file.

19 Q.   So, turning to File of Interest 2, so the second file of

20 interest you write here in this next paragraph, "Your affiant

21 observed that between Saturday, June 23, 2018, at 4:18 p.m.

22 and Monday, June 25, 2018, at 3:57 p.m. UTC, the Freenet

23 node" at IP address -- "at that IP address also requested 132

24 unique blocks of that second file." Do you remember writing

25 that?

1   A.   Yes, sir.   That is correct.

2   Q.   And when you say there that you "observed this," what

3   did you mean by observing?

4   A.   The exact -- very similar to the File of Interest 1.

5   With File of Interest 2, on the File of Interest 2 lead page,

6   it would provide the start and the stop time of the

7   observations.   And it would show the law enforcement nodes

8   that made the observations and the split keys or blocks that

9   were requested.

10 Q.   Okay.

11   THE COURT: And you said -- I'm sorry.   Can I ask a

12 question.   You said law enforcement nodes.

13   THE WITNESS: Yes, your Honor.

14   THE COURT: So, not just your node.

15   THE WITNESS: No, Your Honor.   Not just my -- I

16 can't -- I don't even know the identity of my law enforcement

17 node.

18   THE COURT: You don't?

19   THE WITNESS: No, Your Honor.   Like, I could not

20 give you the number.   At least to the best of my knowledge.

21   But it would list that out in the -- in the Freenet

22 target summary, it's displayed.   It's the data that is

23 brought from ICACCOPS and put into the Freenet target

24 summary.

25   THE COURT: In your training, were you ever trained

1   that it mattered which node, which law enforcement node

2   recorded the request?

3   THE WITNESS: Not to my knowledge, Your Honor. I

4   don't believe it matters. But I don't recall fully. I just

5   know that the law enforcement nodes are the ones that are

6   giving the information back to ICACCOPS.

7   THE COURT: Okay. Before I forget -- sorry to

8   interrupt. Was your training material in writing?

9   THE WITNESS: There was training material in

10   writing, Your Honor. But I was verbally and visually -- it

11   was a training class; like, an in-person training class.

12   THE COURT: All right. Was that produced to you

13   all?

14   MR. FINCI: No, Your Honor. The Government refused

15   to produce it. And the Court, in our back-and-forth over

16   motion to compel, the Court did not require them to produce

17   it.

18   THE COURT: Okay. Well, we'll explore it further

19   if you wish on Cross. Okay. Thanks.

20   BY MR. MORGAN:

21   Q.   So, about the nodes. Do nodes only receive or make

22   observations about requests from that particular

23   jurisdiction?

24   A.   I apologize --

25   Q.   For example, you had the node in Maryland?

1 A.   Yes, sir.

2 Q.   Would the data that comes to that -- is it only about

3 requests from Maryland?

4 A.   I cannot answer that. I do not believe so. To the best

5 of my knowledge, I do not believe so. It's just on the

6 network, and it's documenting requests. And if I'm being

7 honest, I do believe it even forwards requests, to the best

8 of my knowledge.

9 Q.   Okay. All right. So, turning back to this particular

10 file of interest, you were explaining all the data that

11 you're observing, including the node. And you mentioned that

12 you observed the date and time. Is there anything in

13 particular about this date and time here that was of

14 significance to you?

15 A.   That it was also occurring on the day that I was

16 conducting the investigation, June 25, 2018.

17 Q.   Okay. And under this, it's 3:57 UTC, but if it's 11:57

18 Eastern Standard Time, were you still on duty then?

19 A.   Yes, I was, sir.

20 Q.   This was happening essentially contemporaneous with your

21 investigation that day?

22 A.   The same day, yes, sir.

23 Q.   Okay. And now to File of Interest 3. All right. Can

24 you read that?

25 A.   Yes, sir.

1   Q.   Can you see it?

2   A.   Yes, sir.

3   Q.   So, it says that, "Your affiant observed that between

4   Sunday, June 24, at 2:27 p.m. UTC and Sunday June 24 at

5   2:55 p.m. UTC, the Freenet node at that IP address also

6   requested 24 unique blocks from that third file." Again,

7   there what were you observing exactly?

8   A.   The same thing, sir, as the first two. On the leads

9   page for this file, the start and stop time of the

10   observations made of the request.

11   Q.   Okay. So all of that, that we just described, all those

12   observations you're making of the data, and the clicking on

13   things and the looking at Maryland's stuff, all that happened

14   before you even used the Freenet tool summary, the

15   spreadsheet; right?

16   A.   Yes, sir. That is correct.

17   THE COURT: What's the -- I'm sorry. What's the

18   "all that?" The looking at a screen and gathering this

19   information?

20   MR. MORGAN: Everything we just talked about, Your

21   Honor.

22   THE COURT: Well, okay. Then maybe I need to

23   understand more specifically.

24   What are you looking at exactly? What does it look

25   like when you're saying that -- you just testified that

1   what's in your affidavit is what you saw on the screen.

2   THE WITNESS: Yes, Your Honor.

3   THE COURT: So, let's take an example. Explain to

4   me for File of Interest 2 where you report that there was 132

5   unique blocks. Where do you get that from your screen?

6   THE WITNESS: On the leads page -- of the leads

7   page of that file.

8   THE COURT: Yes.

9   THE WITNESS: And if -- could we go down slightly

10 with the paper for the file name. That file name's lead page

11 would display -- and it would assist if you see the actual

12 Freenet, like the breakdown of the -- like, the long split

13 key observations. But it's enough that to have to scroll

14 down for that particular one. But it would show you the

15 start time.

16   And I apologize, Your Honor. It has been

17 approximately 2018, so I can't recall every line; however, it

18 would show the split key to the far right, I believe. It

19 would show the start and stop time to the left. And it would

20 just have other information of that request listed.

21   But it was over 132. The term "unique" meant that

22 there's more lines than just 132. And off the best of my

23 recollection, without seeing it, I can't give you the exact

24 number, but the "unique" means like a single -- it takes out

25 the duplication. Like, if the same split key was requested

1 two times, it would only count it as one, to my knowledge.

2 So that's what the term "unique" meant.

3   THE COURT: But you said you're observing it.

4 Like, on your screen; right?

5   THE WITNESS: I can see the requests, yes, your

6 Honor.

7   THE COURT: And where do you get the -- when you

8 put in the affidavit of 132 unique blocks, what are you

9 seeing on the screen that then you translate into that

10 statement?

11   THE WITNESS: And I can go into -- it would be --

12 like I said, it would be further along. So all of these

13 requests are being logged.

14   THE COURT: Yeah.

15   THE WITNESS: And then I would click -- at that

16 time, I believe it was Control A to select all. And then

17 click Control C to copy all of the data from that.

18   THE COURT: Right.

19   THE WITNESS: And then I would transfer it over to

20 the -- like, for this would be File of Interest 2. And I

21 would click "paste and import." And it would bring all of

22 the data that was observed on the ICACCOPS lead page --

23   THE COURT: Right.

24   THE WITNESS: -- into that File of Interest 2 page,

25 up on the Freenet target summary.

 1   THE COURT: So this is important for me to

 2   understand.

 3   THE WITNESS: Absolutely. Yes, Your Honor.

 4   THE COURT: When you're writing this affidavit, --

 5   THE WITNESS: Yes, Your Honor.

 6   THE COURT: -- you're taking the information from

 7   the lead page or from the Freenet target summary?

 8   THE WITNESS: The data from the Freenet leads

 9   target page is what I take to the -- excuse me. The Freenet

10   leads page for this file is what I take and I put into the

11   Freenet target summary for File of Interest 2.

12   So, it's the data that's presented to me on that

13   page. And then I copy, Control A -- copy the entire tab,

14   like everything that's displayed. And then it transfers it

15   over into the File of Interest 2.

16   Again, I did not create the Freenet target summary.

17   I don't really know how it completely puts everything in.

18   But it makes it more -- if I could use the term "digestible,"

19   that you can see everything.

20   THE COURT: Yeah. And I guess maybe I'm not asking

21   a good question, so I'm sorry. When you're writing this

22   affidavit, --

23   THE WITNESS: Yes, Your Honor.

24   THE COURT: -- are you writing it looking at the

25   Freenet target summary and taking the information from the

1   Freenet target summary to write your affidavit?

2   THE WITNESS: So, the data -- can I go forward?

3   MR. MORGAN: Maybe I could help clarify.

4   THE COURT: Sure.

5   BY MR. MORGAN:

6   Q.   There's ICACCOPS.

7   A.   Yes, sir.

8   Q.   And you have a Freenet portal in there.

9   A.   Yes, sir.

10 Q.   And you can see all this data?

11 A.   Yes, sir.

12 Q.   You could see the requests, the split keys, the

13 location, IP address?

14 A.   Yes, sir.

15 Q.   All the same stuff that eventually will go into the

16 spreadsheet tool?

17 A.   That is correct, sir.

18 Q.   So, if I show you Government's Exhibit 5, just as an

19 example, this is the kind of data. I know it will look very

20 different than what you saw on some other screen, and this is

21 from the Freenet tool.

22   But the data itself, though, like all these rows,

23 three pages here for File of Interest 2, but it's 100 --

24 whatever it was -- 132 --

25 A.   Unique.

1 Q.   -- the first time you saw it was not on the spreadsheet

2 tool itself?

3 A.   No, sir.

4 Q.   And the first time that you made these observations that

5 you're talking about here, that was prior?

6 A.   Prior to.

7 Q.   You chose these files deliberately after observing this

8 data?

9   THE COURT: Wait, wait, wait. Hold on. Counsel,

10 could you approach, please.

11   MR. MORGAN: Sure.

12   (Bench conference held as follows:)

13   THE COURT: Listen, I didn't want to say this in

14 front of the witness, but you're leading. And this witness

15 knows nothing. And I want to know what document was he

16 looking at when he wrote this affidavit. That's what I want

17 to know. Because I strongly suspect that he couldn't tell me

18 what a unique block is from a non-unique block. He can't

19 even tell me which node this is. That didn't matter to him.

20   So, I want to know whether it's a Freenet target

21 summary that he is reading when he types this thing up.

22   MR. MORGAN: Do you want me to ask him?

23   THE COURT: Yeah.

24   MR. MORGAN: The whole portion of that, that's when

25 he stopped because I said he looked at all of this before.

1 That's what you were observing. And then you went to the

2 spreadsheet.

3   THE COURT: Correct. But the reason why that's

4 relevant to me is because he's looking at what to him is the

5 equivalent of garbage. He doesn't know what it is. Because

6 he can't even tell me some basic terms, right. And I just

7 want to know when he's writing this, right, is he looking at

8 the Freenet target summary? Because that tells me the

9 relevance of the Freenet target summary.

10   If he's not looking at it, what is he looking at?

11 I get your point that -- I think the point you're trying to

12 make is that it's -- the omission is that they're using this

13 algorithm. But it is more or less in realtime that he's

14 making these observations. We can dispute that or debate it,

15 right.

16   But I want to know what he is writing down. Like,

17 what is he looking at when he's writing all this stuff down?

18 Because I don't have any faith he knows what this stuff

19 means.

20   MR. MORGAN: I'd be happy to address that.

21   THE COURT: So, it's almost -- and because,

22 frankly, I'm having a hard time sort of hearing it straight.

23   That's why I was asking like you're sitting at the

24 computer. You're writing the affidavit. What are you

25 looking at when you're writing the affidavit?

1   MR. MORGAN: He didn't actually write the

2   affidavit, as he testified. He didn't actually write the

3   affidavit. Typing in his computer until after he did all of

4   his investigation. But he's referring back to what he

5   observed.

6   THE COURT: That's fine. You can do your

7   examination any way you want.

8   But I want an answer to that question at some

9   point, which is: This is his affidavit that he wrote. Maybe

10 he rewrote it. Maybe he cut and pasted. But what source is

11 he looking at when he's creating the affidavit? That I want

12 to know. Okay.

13   (End of bench conference.)

14 BY MR. MORGAN:

15 Q.   So, when you physically write the affidavit and you are

16 writing that you observe these things, what are you looking

17 at?

18 A.   The observations reported on ICACCOPS.

19 Q.   And is that reported in an intelligible way to you?

20 A.   Yes, sir.

21 Q.   Can you explain to the Court how it is that you can see

22 the data there on ICACCOPS and it means something to you?

23 A.   Very similar -- like, if I could refer to the Freenet

24 target summary, it shows all of the observations that are put

25 into the Freenet target summary that have been logged into

1   ICACCOPS as the observations.

2   It looks extremely similar to exactly what is

3   displayed. It's just this was what ICACCOPS, and I copied

4   it.

5   THE COURT: That's not the Freenet target summary

6   that you have up there. The Freenet -- it's labeled Freenet

7   target summary because I believe the witness testified about

8   this the last time.

9   So, I just want to make sure we have our terms

10 right. I think it's exhibit -- current Exhibit 7, maybe.

11   THE WITNESS: I guess I should say that was

12 generated from the Freenet target summary.

13   THE COURT: It's either 6 or 7.

14   THE WITNESS: Yes. That is like a final product of

15 the Freenet target summary.

16 BY MR. MORGAN:

17 Q.   Okay. So, when you are looking at the data in

18 ICACCOPS, --

19 A.   Yes, sir.

20 Q.   -- you say it looks like the Freenet target summary. Is

21 that -- do you mean it looks -- what does it look like? Can

22 you explain it again.

23 A.   The prior page that was just shown for file of

24 interest -- I do not recall which file of interest that was

25 just displaying. I believe it was File of Interest 2.

1   This is just giving -- but if you look here, total

2 unique requests, 29. And then it showed the filtered rows of

3 30.

4 Q.   So, you could see the filtered rows. You could see the

5 rows on ICACCOPS?

6 A.   Yes, sir.

7 Q.   Did that visually look similar to what you eventually

8 got to see again like this, or not?

9 A.   Extremely similar display of what is being displayed on

10 the screen. This would be at the very bottom of the leads

11 page of the file for 5 YO. That would be at the very bottom.

12 Q.   So when you say in the affidavit that you observed 132

13 unique -- he requested -- sorry -- the IP address

14 requested 132 unique blocks, could you see what the 132 --

15 A.   That is correct, sir.

16 Q.   -- sir? In ICACCOPS?

17 A.   Yes, sir.

18 Q.   What format is it listed in?

19 A.   The rows and columns exactly what was just shown up.

20   THE COURT: But what was just shown up? What

21 exhibit number was that?

22   MR. MORGAN: That was Exhibit 4, Your Honor.

23   THE COURT: Exhibit 4. Okay. Thank you.

24   MR. MORGAN: Does that help, Your Honor?

25   THE COURT: Yes, yes. I think I understand what

1 you're saying, Corporal, is that File of Interest Number 1,

2 Exhibit 4, that's what you're looking at when you gather the

3 information that you put in the affidavit.

4   THE WITNESS: Yes, Your Honor. The start and stop

5 time of the observations of the requests of the split keys

6 that are blacked out.

7   THE COURT: So, you get the start and stop time

8 from there?

9   THE WITNESS: Yes, your Honor.

10   THE COURT: What other information? Is there

11 anything else that you get from this page that you put in

12 your affidavit?

13   THE WITNESS: If I could refer back, Your Honor. I

14 apologize.

15   THE COURT: Yes.

16   THE WITNESS: The possible -- I don't know if it's

17 shown -- I'm trying to see. The possible manifest key, Your

18 Honor, that would be displayed there. And the IP address,

19 the start and stop observations. It would show the top one,

20 20180624133518. And then the split key that is blacked out,

21 it would show that on the screen. And then it would do that.

22   And I believe if I could refer to the Freenet

23 summary, it says there's 155 rows, but there was -- just

24 double-checking, Your Honor, since I'm under oath. 132

25 unique block requests.

1   THE COURT: So, you're looking at this screen. And

2   you're looking at the information that then you put in the

3   affidavit?

4   THE WITNESS: And then I copied that whole screen,

5   Control A, Control C, and I import it into the File of

6   Interest 2 tab on the Freenet target summary.

7   And then once I get all three of the files, then I

8   analyze the data. And then the Freenet target summary will

9   be created, like to digest everything, all the data that's

10 ran.

11   THE COURT: Thank you. Very helpful.

12   THE WITNESS: Apologies I didn't explain it more

13 clearly.

14 BY MR. MORGAN:

15 Q.   I do want to clear one last thing to make sure it's

16 clear on the record. That Exhibit 4 is not a screenshot of

17 ICACCOPS; correct?

18 A.   No, sir.

19 Q.   But it is representative of how -- you said it looks

20 very similar; is that correct? To the format, I mean?

21 A.   I feel very confident that it is familiar. Particularly

22 from date, time, port, type, HTL peers, LE IDs, and split key

23 down. Very familiar.

24   And then above this data would give me like the

25 IP address, I believe it's the geographical location. I

1 don't want to misrepresent anything. It gives other data

2 that is pertinent for me to observe.

3 Q.   Okay. In fact, is that how this data gets here?

4 A.   Yes, sir. I copy the entire page that is displayed in

5 ICACCOPS for the file of interest lead page, and I bring all

6 of that data. And there's a button on the Freenet -- the

7 Excel version of the Freenet target summary that you would

8 click paste -- or import paste. I think it's like the top

9 button, and it pulls all of that in.

10   I do not know how it -- I didn't create the program

11 or the Excel spreadsheet, but it pulls all of that and it's

12 designed, to my knowledge, to take from that page and put it

13 into that spreadsheet.

14 Q.   Okay. To your knowledge, is there any data that's put

15 into the spreadsheet that doesn't come from that process?

16 A.   Not to my knowledge, sir, no.

17 Q.   All right. So, you have seen the data on ICACCOPS at

18 this point; is that correct?

19 A.   Yes, sir. That's correct.

20 Q.   And you've made those observations that we were all just

21 talking about?

22 A.   Yes, sir.

23 Q.   And at that point you moved it over into the spreadsheet

24 tool; is that correct?

25 A.   Yes, sir.

1 Q.   Just want to make sure. All right. So, what did you do

2 next?

3 A.   And I apologize with explaining everything. So, after I

4 have made the observations on ICACCOPS, I have copied the

5 lead page for File of Interest 1, 2, and 3 separately.

6   I would go File of Interest 1, copy the whole page,

7 Control A, Control C, import that into File of Interest 1.

8 Go to File of Interest 2, do the exact same process: Bring

9 it into the Freenet target summary, import, paste. It would

10 bring that data in there.

11   Then I would go to the File of Interest 3 lead

12 page, Control A, Control C, then pull it all into the File of

13 Interest 3 target summary, and then click analyze data. I

14 believe it's a green button. Click, analyze data. And it

15 does all of the math that I am aware exists but cannot do

16 myself.

17 Q.   I'd like to show you Government's Exhibit 7, this

18 screenshot. Do you recognize -- does this look familiar to

19 you?

20 A.   That is the Excel -- that appears to be the Excel

21 spreadsheet of the Freenet target summary, sir.

22 Q.   Okay. So when you say you copy and paste, you have --

23   THE COURT: I'm sorry. You said this is

24 Government's Exhibit 7?

25   MR. MORGAN: I'm sorry. Government's Exhibit 1,

 1   page 7.

 2   THE COURT: Got it. Thank you.

 3   BY MR. MORGAN:

 4   Q.   Sure. So when you copy over, it's coming into Excel,

 5   which is where the spreadsheet is. That's the spreadsheet

 6   that you were just talking about; right?

 7   A.   Yes, sir. That's correct.

 8   Q.   So, is this -- what do you see here? What is this to

 9   you?

10   A.   So, before I would hit "paste and import," nothing would

11   be in there. Once I had paste and import, the data would be

12   pulled -- from what I had copied from ICACCOPS would be

13   imported into this Excel spreadsheet.

14   Q.   Okay. So this is an Excel spreadsheet?

15   A.   Yes, sir. It appears to be a screenshot of an Excel

16   spreadsheet, yes, sir.

17   Q.   And the buttons there on the top right, what are those?

18   A.   File of Interest 1, File of Interest 2, and File of

19   Interest 3. And could I add --

20   Q.   The buttons on the top right. I'm sorry.

21   A.   Yes, sir. The paste and import is the button that I am

22   talking about.

23   Q.   Okay. And the other buttons up there, as well?

24   A.   It says, "Import data, clear contents, reset all

25   filters, and analyze data."

1 Q.   Okay. Is this similar to the screen that you would have

2 seen in 2018?

3 A.   Yes, sir. Very similar.

4 Q.   Okay. And when you mentioned earlier, you clicked the

5 button to analyze. Where is that?

6 A.   The analyze data button that's green.

7 Q.   Okay. So, again, you're talking about observing the

8 data in your affidavit.

9 A.   Yes, sir.

10 Q.   Is that the data that you saw in ICACCOPS, or is it

11 something else?

12 A.   This data came from ICACCOPS and was imported into the

13 Freenet target summary by Control A, Control C, and paste and

14 import into the Excel spreadsheet.

15 Q.   Okay. Once you're using Excel and you have this going,

16 are you able to filter the data?

17 A.   You are, sir.

18 Q.   Okay. How do you do that?

19 A.   By clicking -- can we refer to it as the -- basically

20 each one of those carets. You could filter through those

21 carets the next to date, time. In between date and time and

22 port.

23 Q.   Are you talking about the downward triangle?

24 A.   Yes, sir. To my knowledge, yes, sir.

25 Q.   So, if you wanted to, you could filter each of these,

 1 this data, these columns?

 2 A.   Yes, sir.

 3 Q.   Did you filter in this case?

 4 A.   I did not filter, sir.

 5 Q.   Why did you not filter in this case?

 6 A.   I believed it to be optional to filter.

 7 Q.   Why did you think it was optional?

 8 A.   Referring back to a manual that I was provided that said

 9 "may."

10 Q.   Can you explain that.

11 A.   The manual said if you have more than one law

12 enforcement node, you "may" filter. Policies -- with the

13 policies that I've seen, "may" leaves it up to

14 interpretation, sir.

15 Q.   So, you thought it was optional?

16 A.   Yes, sir. That's correct.

17   THE COURT: What does "filter" mean to you?

18   THE WITNESS: That it would filter the data, Your

19 Honor. Since I did not filter it, I don't -- just filtering

20 it would isolate what's presented, I believe. But I did not

21 filter, so I wouldn't want to go on record --

22   THE COURT: Based on your training, what were you

23 trained the filter button meant?

24   THE WITNESS: You could filter the date and time,

25 and I believe the law enforcement node.

1   THE COURT: When you say in your training materials

2 it indicated you may do it, are you saying there was no other

3 guidance in your training materials about when you should?

4   THE WITNESS: I don't recall, Your Honor. I just

5 refer going back to the manual that it said "may." I can't

6 recall.

7   Respectfully, I took the training post (sic) this

8 search warrant, and I don't fully remember everything that

9 was said.

10   THE COURT: You took the training after the search

11 warrant?

12   THE WITNESS: Prior to, Your Honor. Prior to this

13 search warrant.

14   THE COURT: When did you take the training?

15   THE WITNESS: I don't have my records. I didn't

16 know that would be a question. I can provide that. I don't

17 fully recall, currently. But it was prior to this

18 investigation.

19   THE COURT: Okay.

20   THE WITNESS: In 2018.

21 BY MR. MORGAN:

22 Q.   Did you know that the spreadsheet tool didn't

23 automatically do the filtering for you?

24 A.   I was unaware, sir.

25 Q.   And so I just showed you for Government's Exhibits 4, 5,

1 and 6. Here's 4. What is Government's Exhibit 4?

2 A.   I apologize. You're asking me, sir? I apologize.

3 Q.   Yes.

4 A.   It's the File of Interest Number 1, sir. It's the data.

5 Q.   Okay. Government's Exhibit 6.

6 A.   That would be the data for File of Interest Number 3,

7 sir.

8 Q.   Okay. All right. And so these here -- I'll just show

9 you two, but what are those? What is it to you?

10 A.   Those are the -- I believe those came from the

11 Create Final FTS where after you analyze the data, another

12 option would come up of Create Final, FTS. I believe those

13 were generated after that, which would also provide a writing

14 sample, as well.

15 Q.   And so you created that final target summary. Then what

16 did you do then?

17 A.   Then I moved forward with my investigation.

18 Q.   So, going back to your affidavit, Government's

19 Exhibit 3. All right. Here it is, by the way. But this is

20 Government Exhibit 3.

21   This is Government Exhibit 5. What is that?

22 A.   That was the data from File of Interest Number 2, sir.

23 Q.   So, that's the third one, as well?

24 A.   Yes, sir.

25 Q.   All right. So, in the affidavit, at the bottom of

1   what's labeled as page 32, you write: "On Monday, June 25,

2   2018," a check of the IP address -- or "a check on the

3   IP address that's listed there was conducted through

4   MaxMind's database of IP addresses. MaxMind indicated that

5   the IP address --" I'll stop at the first sentence. What

6   were you doing there?

7   A.   Doing a search through MaxMind interface of IP address

8   71.246.207.59, sir.

9   Q.   What is that? What is MaxMind?

10 A.   MaxMind assists in finding out the internet service

11 provider for the IP address that you are investigating. And

12 I should preface -- you could -- I believe it's public.

13 Anybody can use MaxMind, to my knowledge.

14 Q.   And why did you want to do that?

15 A.   Just to validate that it came back to Verizon Business

16 so that I knew where to send a subpoena.

17 Q.   Oh, all right. And so did you then send a subpoena?

18 A.   Yes, I did, sir.

19 Q.   And is that referenced in the next page at the top?

20 A.   Yes, sir. That it provided that it came back -- it

21 geolocated back to Columbia, Maryland. And Verizon Business

22 would be the internet service provider.

23 Q.   Okay. All right. After you got information about the

24 location, what did you do then?

25 A.   Did you mean after -- so on Thursday, July 5?

1   Q.   What did you do next? You got the subpoena back?

2   A.   Yes, sir.

3   Q.   What did you do next?

4   A.   Then I began further -- like, basically everything that

5   I labeled through here. I saw that it came back to 13504

6   Briarcroft Court, Laurel, Maryland, 20708, got basic

7   information from that.

8   Then began conducting searches through the

9   Department of Assessment and Taxation, conducting searches

10   through Motor Vehicle Administration for the occupants that

11   came back. And I believe I did -- let me just double-check,

12   sir. Did a check through the U.S. Postal Service to see who

13   received mail at that address, as well. As well as

14   conducting visual surveillance on Tuesday, August 7, 2018.

15   Q.   And why did you do surveillance?

16   A.   Just to make sure -- because I noted here in the search

17   warrant the 2012 Honda Fit that was parked there -- who it

18   was registered to, just to see the coming and goings of

19   occupants at that address, see if lights come on at certain

20   times.

21   Q.   So, after you get the location, like the address there,

22   what's the point of doing all of the additional steps that

23   you did? Going to the MVA, Department of Assessment and

24   Taxation, the USPS, the surveillance, what's the point of

25   that?

1 A.   Just so that we can see who lives at that address,

2 conduct workups, see criminal records, to see if there's any

3 violent tendencies, if there's any firearms registered to the

4 address, officer safety type of things.

5 Q.   And so after you took other steps, what did you do then?

6 A.   Then after I authored this search warrant and had it

7 endorsed -- signed and endorsed.

8 Q.   You said you authored the search warrant. How did you

9 go about authoring the search warrant?

10 A.   Writing the search warrant, taking information that I've

11 documented in my police report, putting it into the search

12 warrant.

13 Q.   Okay. Is all of that in there from your firsthand

14 personal knowledge?

15 A.   Everything that I have listed out as steps that I've

16 taken or I've been provided through ICACCOPS and the Freenet

17 target summary.

18 Q.   And so did you draft this affidavit contemporaneous with

19 your looking at ICACCOPS? Or was it after you completed all

20 those steps?

21 A.   After I completed all those steps, sir.

22 Q.   Was any of it -- you mentioned earlier that there was a

23 narrative page, as well, that were created?

24 A.   Yes, sir. Yes, sir.

25 Q.   Tell us about that.

1 A.   To aid law enforcement in being able to accurately -- to

2 accurately, I guess, articulate observations made, a writing

3 sample is provided, as well.

4   MR. MORGAN: Okay. Thank you. No further

5 questions.

6   CROSS-EXAMINATION

7 BY MR. ROBBINS:

8 Q.   Good afternoon, Corporal Mills.

9 A.   Hello, sir.

10 Q.   You've known this hearing was coming for a little while?

11 A.   Yes, sir.

12 Q.   Did you do anything to prepare?

13 A.   To prepare?

14 Q.   To prepare for the hearing.

15 A.   Yes, sir.

16 Q.   Met with the Government a couple times?

17 A.   Yes, sir. That's correct.

18 Q.   Had a chance to review your notes?

19 A.   Yes, sir.

20 Q.   Review your training?

21 A.   Being honest -- just like being asked, I forget whenever

22 I took the training. I know it was before the search

23 warrant. But I couldn't give you the exact day of when my...

24 Q.   Yeah. I wasn't too worried about that. But did you get

25 a chance to review the substance of the training?

1 A.   Yes, sir.

2 Q.   Did you have a chance to review your transcript from

3 when you testified October of --

4 A.   2021, I believe. Yes, sir. That's correct.

5 Q.   Sitting here today, having recently reviewed that

6 transcript, is there anything that you said, "Man, I got that

7 wrong"?

8 A.   The validation that I've clarified with the Government.

9 When I said "validation," I meant that I had to -- that I

10 needed three because I was trained to do three through the

11 spreadsheet.

12   And just so you know, Your Honor, I don't know if

13 the spreadsheet will even work without putting three files of

14 interest. I said something about like to make sure the data

15 was sound.

16   THE COURT: You said sound incorrect.

17   THE WITNESS: Yes, Your Honor. What I meant was I

18 needed to have the three files. To my knowledge, you need to

19 have three files in that sheet. That is what I was referring

20 to.

21   And then I believe I may have made a

22 miscommunication with you, Your Honor, when I was talking

23 about the Freenet target, or the Freenet node.

24   You asked me to explain, like you referred to

25 something. And I basically said no. But then I explained

1 what I was talking about, which was what you were talking

2 about.

3   THE COURT: So, in response to Mr. Robbins's

4 question, those were the two things that you now say you got

5 wrong when you testified the last time?

6   THE WITNESS: I reasonably believe that. Yes, Your

7 Honor.

8   THE COURT: Do you want to follow up with that,

9 Mr. Robbins?

10   MR. ROBBINS: Well, I do. But I think I'll get to

11 it in a moment, if it please the Court.

12   THE COURT: Sure.

13 BY MR. ROBBINS:

14 Q.   I want to talk about something you said in this

15 testimony you just gave. You emphasized it a couple of

16 times. And you kept saying there were a certain number of

17 unique files that were provided by ICACCOPS.

18 A.   Unique blocks.

19 Q.   And that was the other thing I needed to ask about.

20 Sometimes you talk about files. But in reality we're talking

21 about block requests that relate to files?

22 A.   Yes, sir. That is correct.

23 Q.   So, when you're talking about when you're looking at

24 something that came from ICACCOPS, we're talking about

25 looking at block requests?

1   A.   Yes, sir.   That's correct.

2   Q.   So, when you talk about a certain number, whether it be

3   29 or 135, or whatever it may be, you're talking about block

4   requests with SHA values?

5   A.   I would have to see the SHA values.

6   Q.   But we're not actually talking about 135 different

7   files.   We're talking about 135 block requests.

8   A.   Block requests.   Yes, sir.

9   Q.   What makes a block request unique?

10   A.   So, in my experience, "unique" means like if we have two

11   of the same split keys that are requested, you wouldn't count

12   that.   Because if you look at the Freenet target summary, it

13   says like 155 rows.   So, that would be the requests.

14   However, within that 155, it would be 132 of unique split

15   keys requested.

16   Q.   Okay.   So, this is what the judge was asking.   Are you

17   telling the Court that before you ever copied the page and

18   pushed it into the Excel spreadsheet, you counted the number

19   of rows?

20   A.   No, sir.

21   Q.   And you're not telling the Court that you went through

22   155 split keys and figured out which ones were unique and

23   which ones weren't?

24   A.   No.   I made the -- because the Freenet target summary

25   does that for you.   I looked at the start, reviewed the split

1   key requests, and, respectfully, it was to reduce the error.

2   For me is that it provides you that information.

3   Q.   Got it. That's what I thought you meant. But I just

4   wanted to make sure because I thought there was perhaps a

5   little confusion.

6   A.   Okay.

7   Q.   All right. And you've summarized basically what you do.

8   You take that target summary that comes from ICAC, you copy

9   it, and you push it into your Excel spreadsheet?

10 A.   I would preface. I review -- I would review the page to

11 make sure it comes back to Maryland, the observation times,

12 the manifest key to request the file -- or the suspected

13 manifest key to request the file. I think it's referred to

14 as "possible." And, yes, sir. But review the data and copy

15 it over.

16 Q.   What do you get from reviewing the times?

17 A.   Just it shows the start and the -- the start observation

18 and the final observation, sir.

19 Q.   Would there be any occasion where you'd say, "Those

20 times are too far apart, I'm not going to mess with this?"

21 A.   No, sir. I've had files take, respectfully -- confident

22 that it took over 24 hours to download one file. Not as part

23 of this, as something separate.

24 Q.   So, that it's not really a continuum of time where you'd

25 say, "That's too long. That particular identification of

1 requests, that doesn't matter"?

2 A.   I guess I wouldn't take note of it, sir.

3 Q.   Okay. And that's kind of consistent with one of the

4 things you said in your October testimony. You didn't really

5 know how long a run lasts or even what a run was; right?

6 A.   Respectfully, no, sir.

7   THE COURT: You didn't -- I'm sorry. You said no.

8 You didn't know what a run is?

9   THE WITNESS: No, Your Honor. I don't recall.

10 BY MR. ROBBINS:

11 Q.   Did you ever know what that was?

12 A.   Through the training -- I just cannot remember. I know

13 we talked about runs. But just today sitting here I do not

14 recall.

15   THE COURT: But you said a moment ago you reviewed

16 your training.

17   THE WITNESS: I didn't review the entire manual,

18 Your Honor. I reviewed the filtering because that was

19 brought to be an issue.

20   THE COURT: How big is this manual?

21   THE WITNESS: I wouldn't want to summarize. About

22 that big, Your Honor, of paper.

23   THE COURT: 20 or 30 pages?

24   THE WITNESS: I would respectfully not want to

25 gauge. It's not a huge manual by my interpretation.

1   THE COURT: So, let me just understand it. For

2 today's purposes, what you did review in that manual was the

3 filtering part, but nothing else?

4   THE WITNESS: Yes, Your Honor. Yes. That is what

5 I focused on. I thought that was an issue from -- that was

6 being brought up, so that was what I was primarily focused on

7 that review.

8 BY MR. ROBBINS:

9 Q. And to be fair, you also told us that at the time you

10 did this investigation, you didn't do any filtering.

11 A. No, sir. No.

12 Q. Try to follow the Government convention on blocking

13 here.

14   I'd like to take just a moment to review the part

15 of the warrant that you've already talked about.

16 A. Yes, sir.

17 Q. In the paragraph at the bottom of this page where you

18 talk about observing between Sunday at 1:35 and Sunday at

19 1:51 an IP address requesting 29 unique blocks of the file,

20 that was not a determination by you prior to pushing the file

21 into the Excel spreadsheet?

22 A. No. I reviewed the columns. I'm just being honest. I

23 didn't sit there and count every single one. This was

24 provided -- again, after you finalize the Freenet target

25 summary, it gives you the Freenet target summary as well as a

1 sample writing of what the program -- what was done.

2 Q.   That sample writing thing is also interesting. In your

3 training, part of your training was how to prepare these

4 affidavits; correct?

5 A.   Yes, sir.

6 Q.   More or less?

7 A.   Yeah, yes, sir. Yeah, being trained.

8 Q.   And part of what you're provided is language that can

9 make fairly complicated stuff understandable to simple lawyer

10 minds?

11 A.   You could refer to law enforcement minds, as well. Yes,

12 sir, it assists in.

13 Q.   All right. So, there's language throughout this

14 affidavit that you didn't personally write.

15 A.   It was provided -- just like the top portion above this,

16 it was provided to me. I've read it. I recall it.

17 Q.   But you didn't have to stay up late at night creating

18 it?

19 A.   No, sir.

20 Q.   All right. And for the CSAM files that you reviewed,

21 you pulled those files based on a target that was provided by

22 ICAMs?

23 A.   I apologize, sir. I am misunderstanding.

24 Q.   You ultimately had to review three files to determine

25 whether or not you were dealing with child pornography in

1 this case.

2 A.   Yes, sir.

3 Q.   And each of those files you had to download from

4 somewhere to review them?

5 A.   You would go to ICACCOPS. Would it give the manifest,

6 click on the file name.

7   I apologize. I'd like to give you the best answer.

8 Q.   Sure.

9 A.   Click on the file name that is displayed for File of

10 Interest 1, 5 YO. Again, the rest of the title. Click on

11 that. It would take you to the Freenet -- or the leads page

12 for that file. And then it would give you the manifest key,

13 if that's answering your question, sir.

14 Q.   And then you click on the manifest key and pull the file

15 down just to make sure --

16 A.   You would copy the manifest key. And then I would go to

17 the Freenet program that was provided in the training. And

18 then go to the downloads section and put that manifest key in

19 the downloads section of that program, sir.

20 Q.   I'm a low-level computer user. I simplified it. You

21 got to take a block and actually put it in --

22 A.   I would prefer not to use block. I would refer --

23 again, manifest key. I want to preface. Yes, sir.

24 Q.   So, you got a copy of the manifest key, put in it the

25 download portion. You download that file?

1   A.   It could take minutes, hours.

2   Q.   When you do that, is there also a description available

3   for you in ICACCOPS as to what this file is?

4   A.   Not that I recall, sir. It may have changed. Not that

5   I recall.

6   Q.   So, every time an officer or investigator has to draft

7   an affidavit, they have to recreate the text that describes

8   the file that's at that manifest key?

9   A.   I wouldn't say that. I believe there are certain ones,

10   but not -- I did not use that. And I respectfully don't

11   remember it ever presenting that. I downloaded the file and

12   wrote -- that's how I write my files out.

13   Q.   So, that is your language.

14   A.   Yes, sir. Yes, sir.

15   THE COURT: What language are we talking about

16   here?

17   MR. ROBBINS: We're talking about the actual

18   description of the file.

19   THE COURT: The description --

20   THE WITNESS: From "description;" after, that is

21   all of my words.

22   THE COURT: That's your words having --

23   THE WITNESS: After watching -- and, respectfully,

24   given that it's child pornography, whenever I am watching it,

25   I'm writing at the same time because I don't want to watch it

1   again.

2   THE COURT: Okay. Got it.

3   MR. ROBBINS: Just exploring which portion of the

4   affidavit this is, Your Honor.

5   THE COURT: Right. I want to know specifically

6   when you say "The target summary produces a writing

7   sample," --

8   THE WITNESS: Yes, Your Honor.

9   THE COURT: Wait, wait, wait. "The target summary

10   produces a writing sample."

11   THE WITNESS: Yes, Your Honor.

12   THE COURT: That is text that the target summary

13   generates; correct?

14   THE WITNESS: Yes, Your Honor.

15   THE COURT: Then do you take that text and put in

16   it the affidavit?

17   THE WITNESS: Yes, Your Honor. As long as I have

18   reviewed it and confirmed it to be true and accurate.

19   THE COURT: Okay. What part of this affidavit in

20   this case is the writing sample that you received from the

21   target summary?

22   THE WITNESS: The first paragraph. I would have to

23   see -- it's a PDF it creates. So, you do the Freenet target

24   summary and you bring all of the data in and you analyze the

25   data it passes. And you click Create Final Freenet Target

1   Summary. It produces a series of, I believe, PDF files,

2   which some have been displayed here. And then it also

3   displays a PDF file of the portion, the top portion there

4   that is provided by the Freenet target summary from the

5   developers. So, that is to give information.

6   Q.   Okay. And that's what you called a writing sample a

7   moment ago?

8   THE WITNESS: Yes, Your Honor.

9   THE COURT: Show me specifically what passage comes

10 from that writing sample created by the target summary.

11   THE WITNESS: I apologize, sir. Your name? I

12 apologize. Okay. If counsel could go up, Your Honor, on the

13 page.

14   THE COURT: So, there is on the screen right now as

15 part of the affidavit where it says "Exhibit 5."

16   THE WITNESS: Yes. It would be from "and" to the

17 period at "the file."

18   THE COURT: Okay. So the first paragraph on that

19 page.

20   THE WITNESS: Yes, sir. I am so sorry. I

21 apologize, Your Honor.

22   THE COURT: Don't worry about it.

23   THE WITNESS: Yes, Your Honor.

24   THE COURT: That paragraph comes from the Freenet

25 target summary?

1   THE WITNESS: Yes, Your Honor.

2   THE COURT: Anything else on that page?

3   THE WITNESS: Yes, Your Honor. It gives -- it

4   provides, like, whenever you put all of the data in, it tells

5   you on Monday the 25th, 2018, while reviewing, it would

6   provide --

7   THE COURT: So the next paragraph that begins "On

8   Monday" and ends with "below," that entire paragraph comes

9   from the Freenet target summary?

10   THE WITNESS: And I believe I have taken one

11 section out at the request of my supervisor. It's captured

12 in my report. But my supervisor deemed that section to be

13 confusing, so I took that part out.

14   THE COURT: So, there was a part of the narrative,

15 the writing sample in the Freenet target summary that you

16 took out, but otherwise the words in that paragraph are

17 directly from the writing sample; am I getting it right?

18   THE WITNESS: I feel confident. Yes, Your Honor.

19 I would like to see the PDF. If I could see the PDF file, I

20 could give you the exact.

21   THE COURT: Let me ask you. What was your process?

22 Your process was to highlight, cut, paste, and put it in?

23   THE WITNESS: Yes, Your Honor. And review it and

24 make sure everything looked correct.

25   THE COURT: Do you have any reason to doubt that

 1 you did it any differently in this case than any other?

 2   THE WITNESS: No, I do not, Your Honor.

 3   THE COURT: So that paragraph, but for the part

 4 your supervisor told you to take out --

 5   THE WITNESS: If I have my report in front of me.

 6 I don't know if --

 7   THE COURT: In a minute you can do that. I just

 8 want to understand --

 9   THE WITNESS: Yes, Your Honor.

10   THE COURT: -- what parts of the affidavit come

11 from the writing sample.

12   THE WITNESS: Again, if I could just preface to the

13 best of my knowledge.

14   THE COURT: Sure.

15   THE WITNESS: So on Monday until -- could you go

16 down, Counselor, please.

17   MR. ROBBINS: Sure. The next file is the

18 description of the file. Do you want to see the next file?

19   THE WITNESS: No. If you could scroll down, I

20 could provide everything.

21   Your Honor, basically the first paragraph, the

22 second -- well, I've changed from "I" to "Your affiant." It

23 did not say "Your affiant."

24   From the first paragraph down to the period prior

25 to "Below." And it says, "Below is a description of the

 1 download." Those, to the best of my recollection, are my

 2 words. Then the file name is from me, the description.

 3   THE COURT: Is from you?

 4   THE WITNESS: Yes, Your Honor.

 5   THE COURT: So, everything above "file name" is

 6 from the writing sample.

 7   THE WITNESS: Yes, Your Honor. To the best of my

 8 knowledge and ability. Yes, Your Honor.

 9   THE COURT: And that's the same for each file of

10 interest?

11   THE WITNESS: Yes, Your Honor. Yes, Your Honor.

12   THE COURT: I get it. Thank you.

13   THE WITNESS: Yes, Your Honor.

14   MR. ROBBINS: You cut to the chase, Your Honor.

15 Thank you.

16   May I have a moment, Your Honor?

17   THE COURT: Sure.

18   THE WITNESS: Your Honor, would you like me to

19 specify what I took out, Your Honor?

20   THE COURT: I just want to make sure that counsel

21 has a moment to confer without having to listen in two

22 places.

23   (Pause while counsel confer.)

24   MR. ROBBINS: Thank you, Your Honor.

25   You're still there.

1   THE COURT: Yes, sir. I'm not going anywhere.

2   BY MR. ROBBINS:

3   Q.   You had talked about needing three files. That was

4   fundamental to your training; wasn't it?

5   A.   To the best of my knowledge, yes.

6   Q.   And, in fact, I think you just told us that you don't

7   think that the spreadsheet will even work if you can't put

8   three files in it.

9   A.   I would preface I have never attempted it, so...

10   MR. ROBBINS: I think we'll rest at that, Your

11 Honor.

12   THE COURT: Can I just follow up. Do you recall

13 anything from your training as to why you were told you

14 needed three files?

15   THE WITNESS: Again, Your Honor, I think it was

16 just referred to as like the best practice, and that it's --

17 you know, one can be a violation just like if we get a cyber

18 tip.

19   THE COURT: No. My question is -- I want you to

20 answer my question.

21   THE WITNESS: I apologize, Your Honor. Yes, Your

22 Honor.

23   THE COURT: Did anyone ever tell you why it's the

24 best practice?

25   THE WITNESS: I do not recall, Your Honor.

1   THE COURT: Okay. But you always did it that way?

2   THE WITNESS: But I was shown three, and that's how

3 I have always done it, Your Honor, is three.

4   THE COURT: And you've never used a filter; is that

5 correct?

6   THE WITNESS: No, Your Honor.

7   THE COURT: You've never used a filter. Is that

8 correct?

9   THE WITNESS: Yes, Your Honor. That's correct.

10   THE COURT: Okay.

11   MR. MORGAN: Did you Your Honor have --

12   THE COURT: No. Go ahead. Thanks.

13   REDIRECT EXAMINATION

14 BY MR. MORGAN:

15 Q.   So, the narrative aids that you just mentioned that are

16 created by the tool, --

17 A.   Yes, sir.

18 Q.   -- did you review those before you gave them to the

19 judge?

20 A.   Yes, sir. That is correct.

21 Q.   Tell me about that process.

22 A.   That it was -- I read through it. And I would take that

23 and put it into my police report. I don't know if you want

24 anymore detail. But I would read through the whole line by

25 line.

1   Q.   Why would you do that?

2   A.   To confirm that there were no mistakes.

3   Q.   Okay. And did you do that in this case?

4   A.   Yes, I did, sir.

5   Q.   So -- and you swore under oath to the judge, right?

6   A.   Yes, I did, sir.

7   Q.   That to the best of your knowledge it's accurate?

8   A.   Yes, sir.

9   Q.   And specifically the portions that you were just

10 discussing from between file name and on page -- I'm sorry --

11 I'm on Government's Exhibit 3. Between the bolded line "In

12 support of" and the file name there, you said that that was

13 generated for you; right?

14 A.   Again, to the best of my knowledge. Yes, sir.

15 Q.   And you reviewed it? In fact, you took something out?

16 A.   Yes, sir.

17 Q.   So, did your supervisor review it?

18 A.   Yes, sir, he did, as well.

19 Q.   Okay. What's that process like?

20 A.   Basically after you author a search warrant, you hand it

21 to your supervisor. He has already received your reports,

22 your documentation. But I would give this to my supervisor.

23 He would review it. After he would say like, Yep, good to

24 go. And then I would be able -- I would be authorized by him

25 to go get it signed and endorsed by a judge.

1 Q. Okay. So, you reviewed it yourself?

2 A. Yes, sir. That is correct.

3 Q. And another supervisor reviewed it, too?

4 A. Yes, sir. That is correct.

5 Q. You have a statement in here, for example, that "On

6 Monday, June 25" -- which was the date of your investigation;

7 right?

8 A. Yes, sir. That is correct.

9 Q. "-- while reviewing data received by law enforcement

10 Freenet nodes, your affiant observed that the IP address at a

11 Freenet location requesting blocks of suspected child

12 pornography files."

13 A. Yes, sir.

14 Q. Is that accurate?

15 A. Yes, sir. That is correct.

16 Q. And where did you first see that data?

17 A. On ICACCOPS, sir.

18 Q. Okay. I know you mentioned before that you didn't

19 literally count the 135 unique rows of the data in ICACCOPS;

20 correct?

21 A. Yes, sir.

22 Q. But could you have if you wanted to?

23 A. Yes, sir.

24 Q. Because was it there for you?

25 A. Yes, sir.

1   Q.   Okay. And so when you're talking about observing that

2   data, reviewing the data there, is that what you're referring

3   to?

4   A.   Yes, sir. Looking at the -- from the start time going

5   down, scrolling down, going to the end, and then copying all

6   of that data over to the Freenet target summary.

7   Q.   And at that point you had already, as you testified

8   before, I think -- and correct me if I'm wrong -- that you

9   verified the location?

10   A.   Location of what? I apologize.

11   Q.   You saw that it was in Maryland?

12   A.   Yes. It's not uncommon that sometimes it will like,

13   given Columbia and Laurel are so close, that it would

14   geolocate to Columbia but come back to Laurel after doing a

15   subpoena.

16   Q.   And before you got to the Freenet tool, the spreadsheet

17   tool, --

18   A.   Yes, sir.

19   Q.   -- you looked at the file name?

20   A.   Yes, sir.

21   Q.   And you determined which ones were of the greatest

22   interest to you?

23   A.   Yes, sir.

24   Q.   Then you said you clicked on the file?

25   A.   Clicked on the file name. That led me to the page to

1 give me the manifest key, sir.

2 Q.   I think that's what you were discussing with counsel

3 before?

4 A.   Yes, sir.

5 Q.   About the manifest key.

6 A.   Yes, sir.

7 Q.   And explain to me again what you did at that point, as

8 well.

9 A.   The manifest key would be displayed on the lead page of

10 that file name. I would copy the manifest key, and then I

11 would go to my Freenet program, entirely different from

12 ICACCOPS, and download it using the Freenet program.

13 Q.   Okay. And so the next paragraph down where you're

14 talking about that you observed -- you actually observed that

15 "Between Sunday June 24 at 1:35 and 1:51 that that IP address

16 requested 29 unique blocks." That was auto-generated?

17 A.   Yes, sir.

18 Q.   Is that what you're saying?

19 A.   Yes, sir.

20 Q.   But you reviewed it?

21 A.   Yes, sir.

22 Q.   Is it accurate?

23 A.   Yes, sir. To the best of my knowledge and ability.

24 Q.   And so did you, in fact, observe that -- that between

25 June 24th at 1:35 and Sunday, June 24th at 1:55 that Freenet

1 node had requested the 29 blocks?

2 A.   Yes, I did, sir. Yes, sir.

3 Q.   And were those 29 blocks available for you to view in

4 ICACCOPS individually if you'd like to count them up?

5 A.   Yes, sir. They were in a row that went down. And it

6 was underneath of the above-listed information that I've

7 discussed like the manifest key and the location and

8 IP address.

9 Q.   Okay. And so then after you made those observations,

10 that's when you took it and copied it over into the Freenet

11 summary tool, the spreadsheet; correct?

12 A.   Yes, sir. Because I would hit Control A, make sure

13 everything was highlighted, control C.

14 Q.   And you did that, and then you hit the analyze button

15 that you were talking about?

16 A.   After putting all three in, yes, sir.

17 Q.   And you didn't hit the filter button?

18 A.   I did not, sir.

19   Again, if I could just add. I can't remember, I

20 don't recall ever being shown if the spreadsheet will do two

21 or less than three, but I only recall it being able to do

22 three.

23   MR. MORGAN: No further questions. Thank you.

24   THE COURT: Sir, before you step down, I know you

25 wanted to tell me what the part was that your supervisor told

1   you to take out.

2   THE WITNESS: Yes, Your Honor. I apologize for

3   breaking in.

4   THE COURT: It's okay. I just wanted to, for

5   completeness of the record, you asked a couple of times. So

6   let's make sure it is part of the record.

7   THE WITNESS: It was in my report. I left it in my

8   report. He just said that it -- it was basically a section.

9   Would you like me to read it?

10   THE COURT: Sure.

11   THE WITNESS: Okay. So, after like for File of

12   Interest 1, which would have been between Sunday,

13   June 24, 2018, and 1:35 p.m. UTC and 1:51 p.m. UTC, the

14   section he routinely would have me take out, the -- I

15   apologize.

16   So, after it says like 69.1 peers, to reconstruct

17   the file requires a minimum of 2,062 of blocks of a total --

18   of a total possible of 4,142. These 29 blocks represent

19   97 percent of the even or expected share of the minimum

20   blocks, 2,062, required to download the file and 48 percent

21   of the even or expected share of the total blocks, 4,142

22   available.

23   He would have me take that section out for each of

24   the files because he found it to be confusing. And to

25   simplify the probable cause, he would recommend it to be

1 taken out.

2   THE COURT: Okay. So, what you just read, where in

3 the writing sample, the summary, where would it go?

4   THE WITNESS: It would go right where I just read

5 it from. It would go after "the peers," the period after

6 "peers." And then it would be put in between, "This file can

7 be downloaded from Freenet using that key."

8   THE COURT: I'm just trying to find it. So I'm in

9 your affidavit right now.

10   THE WITNESS: Yes, Your Honor.

11   THE COURT: And you just read from File of Interest

12 1, your police report that had that extra language. Was that

13 for File of Interest 1?

14   THE WITNESS: Yes, Your Honor. And I apologize.

15 Then he also had me take out, "The Freenet node reported an

16 average of 61.1 peers." I apologize.

17   THE COURT: Maybe it is just easier to make it,

18 unless there's an objection, a court exhibit or Government or

19 defense exhibit.

20   I just want to see it and see where it would have

21 gone in the affidavit had the judge had it.

22   MR. ROBBINS: We have no objection, Your Honor, but

23 we don't have a copy.

24   THE WITNESS: It's in my police report which I have

25 right here, Your Honor.

1   MR. MORGAN: No objection at all.

2   THE COURT: So, then why don't we do this. Why

3 don't we take a minute and let me just copy the police report

4 for you all and make it an exhibit. And then at least I know

5 what the language is because otherwise -- and we can nail

6 down exactly where in this narrative it would have gone.

7 Because -- anyway.

8   MR. MORGAN: Makes sense, Your Honor.

9   THE COURT: Okay. Let's do that, if you wouldn't

10 mind. Let's just take a quick break. We'll make copies of

11 this and make it available. Why don't we take five.

12   You're still under oath. Don't talk to anybody

13 about your testimony.

14   THE WITNESS: Okay, Your Honor. Thank you.

15   (Recess held.)

16   MR. ROBBINS: I need one more minute, Your Honor.

17 I lost Mr. Finci.

18   THE COURT: That's fine. And we lost the witness.

19   MR. MORGAN: I asked him to sit in the room by

20 himself. If I could go get him.

21   THE COURT: Sure. Sure.

22   All right, everyone. You could have a seat. Let's

23 go back on the record. We made copies of Corporal Mills's

24 police report for everyone. Do you want me to just make it a

25 court exhibit? Court Exhibit 1?

1   MR. ROBBINS: The only thing that occurs to me,

2   Your Honor, is the Government may want to make an exhibit so

3   they can hold it and it not be in the record.

4   THE COURT: It's up to you. I mean, I don't care

5   who does it, just that it's identified so that the record is

6   clear.

7   MR. MORGAN: We could mark it as Government's

8   Exhibit 10.

9   THE COURT: Government's Exhibit 10. So the report

10 is Government's Exhibit 10.

11   And from this report, now that we have it, does

12 either side have any follow-up questions for the witness

13 about the report?

14   MR. ROBBINS: I have one, Your Honor.

15   THE COURT: Sure.

16 BY MR. ROBBINS:

17 Q.   When your detective sergeant made you cut out those two

18 sentences because he found them confusing, --

19 A.   Yes, sir.

20 Q.   -- did you ever take an opportunity to try to explain

21 them?

22 A.   Yes, sir. I told him I would like to leave them in, I

23 believe. Like to the best of my recollection, but he

24 requested them -- he felt that they may be confusing to a

25 judge.

1   Q.   Could you explain them to him?

2   THE COURT: Could you explain it to me?

3   THE WITNESS: No, Your Honor. Other than that it

4   was provided from the Freenet target summary, no, Your Honor.

5   Like the percentages, --

6   THE COURT: What it means.

7   THE WITNESS: -- it did the math. To my knowledge,

8   that's the math from the Freenet target summary.

9   THE COURT: Right. But could you explain to me its

10 significance?

11   THE WITNESS: No, Your Honor. I could only say

12 that I got it from the Freenet target summary.

13   MR. ROBBINS: Thank you, Your Honor.

14   THE COURT: Okay. Anything else?

15   MR. MORGAN: No. No. Not based on that. Thank

16 you.

17   THE COURT: Okay. Corporal Mills, I believe this

18 concludes your testimony.

19   THE WITNESS: Thank you, Your Honor.

20   THE COURT: You may step down.

21   THE WITNESS: Thank you, Your Honor. Have a great

22 day.

23   THE COURT: Have a great weekend.

24   THE WITNESS: Thank you. You, as well.

25   THE COURT: Thank you.

1   Okay. Next witness.

2   MR. MORGAN: United States calls Dr. Brian Levine.

3   THE CLERK: Dr. Levine, please walk towards me.

4   Stand right here to be sworn. Please raise your right hand.

5   BRIAN LEVINE

6   having been called as a witness and having been duly sworn, was

7   examined and testified as follows:

8   THE CLERK: Please have a seat in the witness box.

9   Watch your step as you enter.

10   And if you would please, speak loudly and clearly

11   into the microphone.

12   THE WITNESS: Yes.

13   THE CLERK: State your name for the record and

14   spell each name.

15   THE WITNESS: My name is Brian Levine. B-R-I-A-N

16   Levine, L-E-V-I-N-E.

17   THE CLERK: Thank you.

18   THE WITNESS: Thank you.

19   DIRECT EXAMINATION

20   BY MR. MORGAN:

21   Q.   Good afternoon.

22   A.   Good afternoon.

23   Q.   Dr. Levine, where are you employed?

24   A.   I am a professor at the University of Massachusetts

25   Amherst.

1   Q.   And what is your area of expertise?

2   A.   Well, as I said I'm a professor. I'm in the College of

3   Information and Computer Sciences, and my expertise is in

4   computer science. And I focus on security, networking,

5   forensics, those areas. Privacy.

6   Q.   And how long have you worked in that field?

7   A.   Well, I started in grad school in 1994. I graduated

8   with a PhD in 1999. During that time, I did research under

9   my adviser. I had joined the university in the tenure track

10 that year. I was promoted with tenure 2005. I became a full

11 professor some number of years after. And that's the

12 position I hold today.

13 Q.   First, can you briefly describe your work as it relates

14 to digital forensics and specifically Freenet?

15 A.   Yes.

16   THE COURT: Actually, Mr. Morgan, Dr. Levine's been

17 qualified before. We've gone through all that. You could

18 just get right to the meat of the follow-up.

19   MR. MORGAN: For the record, I move him in as an

20 expert in forensics and Freenet.

21   THE COURT: He has already been qualified and

22 admitted. This is a follow-on regarding his supplement

23 report. It looks like the doctor wants to add something,

24 though.

25   THE WITNESS: Can you put the microphone closer to

1 you? I'm sorry.

2 BY MR. MORGAN:

3 Q.   I keep stepping away from it. I'm sorry.

4   So you previously testified in this case; --

5 A.   I have.

6 Q.   -- correct?

7   And could you briefly -- just very briefly remind

8 us again of what your statistical test or formula is as it

9 relates to Freenet.

10 A.   So, previously I testified about the statistical tests

11 that we published in two peer-reviewed papers. And the goal

12 of the statistical tests is to take observations of requests

13 for downloads on the Freenet network and then determine

14 whether those requests represent that someone who you're

15 receiving the request from as law enforcement is the actual

16 original downloader of the file, or whether on the Freenet

17 network those requests have been relayed, as Your Honor knows

18 we've talked about previously.

19 Q.   And how accurate is it?

20 A.   So, in the 2020 peer-reviewed paper, which I believe has

21 been introduced in my prior testimony, I think I believe

22 today we did a number of evaluations. One of them is a test

23 on the network of -- we did 918 trials. All of them were

24 negatives. All of them were not actual downloads by node.

25 And all of them were evaluated to, you know, according to the

1 test, and two out of the 918 came back falsely positive. So,

2 2 out of 918.

3   There's some additional statistics you do, as I've

4 testified to, including a confidence interval. But, in

5 short, the bottom line is that with no greater than

6 1 percent, the false positive rate is no greater than

7 1 percent.

8 Q.   Okay. So, we've called you back to testify on a

9 narrower topic, specifically the defense's expert report.

10 A.   Okay.

11 Q.   It's marked as Government's Exhibit 2. Have you had a

12 chance to review the defense expert report?

13 A.   I have.

14 Q.   Okay. And did you draft a response to that?

15 A.   I did.

16 Q.   And is that Government's Exhibit Number 1 here?

17 A.   Yes.

18 Q.   What, if anything, did you rely upon or review or

19 reference during the drafting of your response of your

20 report?

21 A.   So, it's listed in my report. It's the expert's report

22 in front of us, the spreadsheet, the two -- my own papers,

23 excuse me, and then the spreadsheet.

24 Q.   Okay. Did you review also the search warrant affidavit

25 in this case?

1   A.   Yes. Yes, I'm sorry. I thought I included that. Thank

2   you.

3   Q.   So, the spreadsheet tool that you reviewed -- are there

4   multiple versions of that spreadsheet tool?

5   A.   Yes. So, over time, it's amended to include new

6   features and so on.

7   Q.   Did you make that spreadsheet tool itself?

8   A.   I did not.

9   Q.   Who did?

10 A.   Law enforcement that I know.

11 Q.   Is your mathematical test, the one you just described as

12 having the less than 1 percent false positive rate, contained

13 in part of that spreadsheet?

14 A.   It is.

15 Q.   Where?

16 A.   So, as we've talked about a little bit today, there are

17 three tabs on the spreadsheet, because typically it's

18 expecting three files. And so each one of those files of

19 interest, as it's called, contains a particular cell. And in

20 this cell is encoded the Excel version of the formula, the

21 statistical test that I wrote about in the paper -- the

22 papers. And so it appears three times.

23   THE COURT: What appears three times? I'm sorry.

24   THE WITNESS: I'm sorry, Your Honor. I could not

25 hear you.

1   THE COURT: What appears three times?

2   THE WITNESS: In three different cells, each cell

3   has a perfect encoding of the statistical test that I wrote

4   about in math in the papers.

5   THE COURT: Okay. At some point, whenever it's

6   good for you, Mr. Morgan, could you have the doctor just

7   identify for me in one of the papers, I think the more recent

8   one, what specific equation is the one that's in the

9   spreadsheet, if that makes sense.

10   THE WITNESS: Yes, Your Honor. From memory, it's

11 equation 2 in the 2020 paper, but I prefer to see the paper

12 on screen if no one minds.

13   THE COURT: Yes.

14   MR. MORGAN: You mean from the peer-reviewed paper,

15 or you want the cell end of the spreadsheet where it's

16 located?

17   THE COURT: I want to know in the peer-reviewed

18 paper what Dr. Levine says is the equation that's in the

19 Excel spreadsheet.

20   THE WITNESS: If I may --

21   THE COURT: So I can understand your testimony as I

22 go.

23   THE WITNESS: Yeah. And if I may add -- do you

24 mind scrolling up. So, what's on the screen is my report. I

25 say scroll, but this is a printout. Let's do that after.

1   Let's answer the Court's question.

2   BY MR. MORGAN:

3   Q.   Thank you. Could you please direct me in this which --

4   A.   So, I think you'll have to go page by page until I tell

5   you to stop.

6   THE COURT: Is that the original paper, or is that

7   the 2020?

8   THE WITNESS: Your Honor, that's the 2020 paper.

9   THE COURT: So, that is Exhibit 2?

10   MR. MORGAN: This was already admitted in the

11 previous hearing. I didn't separately mark it for this

12 hearing, so it's not one of the Government's exhibits.

13   THE COURT: For the record, it's 1072. It's the

14 ECF-1072. Great, thanks.

15   MR. MORGAN: Your Honor, if I could, it might be

16 faster if I could approach and just let him find it and then

17 we'll go from there.

18   THE COURT: No problem.

19   THE WITNESS: Thank you. So, unfortunately, there

20 are not page numbers. But it's Equation 2. There is only

21 one equation labeled as 2 in the entire paper.

22   Counsel, do you mind telling me which section?

23 BY MR. MORGAN:

24 Q.   Yes. I can count the pages, too. It looks like the

25 fourth page. I'm sorry. Fifth page where it says -- you

1 said Number 2?

2 A.   Number 2 in the right column.

3   THE COURT: Okay. So on the right column, Number

4 2.

5   MR. MORGAN: Correct, Your Honor. It says 4.3

6 analysis for the record.

7   THE COURT: Yeah. It's under that Section 4.3

8 analysis. It begins with "All together we have?"

9   THE WITNESS: Correct.

10   THE COURT: All right. Got it.

11   THE WITNESS: And then it ends with -- oh, I'm

12 sorry. That's correct. It's a different sentence.

13   THE COURT: Where TR, that whole thing is the

14 complement above. Okay.

15   THE WITNESS: Yes.

16   THE COURT: Very good. Thank you.

17 BY MR. MORGAN:

18 Q.   So, that is the formula that you encoded into the

19 spreadsheet?

20 A.   Correct.

21 Q.   I'm showing you your report again, Government's

22 Exhibit 1. How is it in this spreadsheet?

23 A.   So, from memory, I believe it is the cell D1 that says

24 "pass." And that encodes it.

25 Q.   Okay.

1   A.   But that is from memory. But definitely there's a cell

2   in particular that has that. Again, you have to represent it

3   differently in a spreadsheet. But it's in there.

4   Q.   But the rest of the spreadsheet, as you said before,

5   it's not your product; right?

6   A.   Correct.

7   Q.   And so when you said it's three times, what did you mean

8   by that?

9   A.   So, if you would please move the paper a little bit up.

10   Yes. So, you see visually there's a -- I think it must be

11   green. There's a green underline under FOI1. That is a tab.

12   This is a screenshot of the spreadsheet, so if you were to

13   click on File of Interest 2 you would see something very

14   similar. There would be a corresponding cell that has

15   another instance of the spreadsheet. There's a File of

16   Interest 3.

17   I've seen people -- well, I'll leave it at that.

18   Q.   So, when you say three times, you mean there's one for

19   each file of interest?

20   A.   The spreadsheet is blank to start, of course. You know,

21   it's a template to be used as a -- in a particular

22   investigation. So, you can do up to three. And it comes

23   three -- everything is prepared for up to three there. So,

24   each one is prepared with a different exact copy of the

25   formula.

1   Q.   So, in this spreadsheet, how is your formula used?

2   A.   So, as we see, and we've talked about many times,

3   there's lots of data in the spreadsheet. And the purpose of

4   the formula is to take important values from this data, apply

5   it to the variables of the statistical tests, and then it

6   produces a decision.

7   Q.   Okay. And what's the decision represented as in this

8   spreadsheet?

9   A.   So, the way it's represented in the spreadsheet is the

10   text label "pass." If the calculation reaches a certain

11   value, it will display "pass." And if it reaches anything

12   under that value, then it will display -- I'm sorry?

13   Q.   And what is that value you're talking about?

14   A.   So, when we run the Equation Number 2 -- actually, do

15   you mind putting the paper back up on the ELMO?

16   Q.   Sure.

17   A.   Okay. So, when we run this equation, there's a

18   particular value that will come out between 0 and 1. We're

19   calculating a probability here. That's what Your Honor saw

20   "Pr." It's referring to the word "probability." So, it's

21   always going to be between 0 and 1.

22   And then what we do -- and we're calculating the

23   probability, is this the downloader? Or the other

24   possibility is it's the relayer.

25   So, traditionally -- in fact, you can see here it

1 says Equation 2 represents a standard hypothesis test.

2   So, this is actually not something we invented. It

3 comes from textbooks. So, in these textbooks, they'll tell

4 you you're deciding between two possibilities. Go with -- if

5 it's 50 percent, greater than 50 percent, it must be one

6 possibility; if it's less than 50 percent, it's the other.

7   So, it says right at the end of this paragraph,

8 it's written in a little bit of math for the peers that

9 reviewed the paper; but more intuitively what we say in the

10 paper and what is encoded in the spreadsheet is it looks for

11 a high confidence result.

12   It says if the number is greater than a .98

13 probability, which is quite high, with that high confidence

14 result, then the spreadsheet and what we say in the paper is

15 that you say that it passed the test only then. And then it

16 displays the word "pass."

17   So, there are situations where the test would,

18 according to a math textbook, decide that this is the

19 original relayer.

20   But we put a higher standard on it and said that it

21 has to be found with a great confidence. And then as I said,

22 I think repeatedly now, the spreadsheet has that same

23 threshold.

24 Q. So, the .98 you're talking about?

25 A. Correct.

1   Q.   So, if that threshold to hit pass is the .98, what does

2   it mean to fail? To get a result of fail in the spreadsheet?

3   A.   So, I think I said this just a little bit just now, but

4   to fail, it could be that the result of the formula is

5   something near 0, which would indicate -- according to the

6   data that's been observed and what's been sent into the

7   formula, there's very little chance that this is an original

8   downloader.

9   But fail can also mean, as I said, that the test,

10   the probability returned by the statistical test, Equation

11   Number 2, is something greater than .5. But it's not passing

12   the threshold that we enforced on the test. It said, you

13   know, you could get .979, and that's not greater than or

14   equal to .98.

15   So, a fail can mean, you know, this is something

16   that appears to be downloader, but it's basically informing

17   the user, the investigator: You can pass on -- I shouldn't

18   use the word pass here. You can ignore this one. It's not a

19   pass.

20   Q.   And so is it fair -- we're saying .98, but is it fair to

21   say 98 percent confidence?

22   A.   Correct. Yes.

23   Q.   And so if it says "pass," that means that it got greater

24   than a 98 percent confidence rate? Is that what you're

25   saying?

1   A.   I believe it's greater than or equal to, but yes.

2   Q.   And then if it displays "fail," if I'm understanding

3   what you just said, it's something other than that, so 97.9

4   and below?

5   A.   Correct. Correct.

6   Q.   So, could you have a situation where you analyzed --

7   where a user of this spreadsheet analyzes the data for a file

8   of interest, using your formula that we just discussed, and

9   gets the result "fail," but there was actually a 97 percent

10 confidence rate?

11 A.   Correct.

12 Q.   Okay. There could also be a 70 percent confidence rate?

13 A.   Correct.

14 Q.   Or as you said all the way down to 0?

15 A.   Correct.

16 Q.   But just because it says fail, does that mean it is 0?

17 A.   Absolutely not.

18 Q.   Or less than 50?

19 A.   Correct.

20 Q.   So, is fail, then, for the context of this spreadsheet,

21 the same thing that you'd discuss about false positives in

22 your paper?

23 A.   No, not at all.

24 Q.   Can you explain the difference.

25 A.   So, a false positive would be a case where the formula

1   was used. The values that were put into it resulted in a

2   probability greater than the threshold of what we're calling

3   a confidence of .98; but, in fact, when you actually, if you

4   were able to, you know, through legal process -- I'm just

5   going to put that aside.

6   As an oracle, let's just say, if you were able to

7   go into the house and see what actually happened, false

8   positive means something happened for this data to falsely

9   indicate to the formula this person is an actual or this node

10   is actually an original downloader, when, in fact, it's a

11   false positive.

12   A false positive would not be -- does that answer

13   your question?

14   Q.   So, a fail -- does fail in the spreadsheet mean that you

15   got a false positive?

16   A.   Not at all. Yeah. I mean, it can be that it's saying

17   don't consider this a positive. That's what fail means.

18   Q.   Okay. Is there -- okay.

19   Did you review your formula? In the spreadsheet

20   itself?

21   A.   I did.

22   Q.   And did you do it in the version, the 2018 version

23   Corporal Mills used?

24   A.   I looked specifically at the exact spreadsheet file from

25   Corporal Mills, and I looked at that exact cell.

1 Q.   Okay. And the same one that was referenced in the

2 defense expert report, as well?

3 A.   I believe so.

4 Q.   And is it encoded correctly into the spreadsheet?

5 A.   It is.

6 Q.   And did you run the spreadsheet tool on the data that

7 Corporal Mills had?

8 A.   I did.

9 Q.   Okay. And did you also perform the calculations

10 yourself manually for your expert report?

11 A.   I did.

12 Q.   And did it match the results from running the

13 spreadsheet tool?

14 A.   Both came up with the passing the threshold.

15   THE COURT: Both what? I'm sorry.

16   THE WITNESS: I'm sorry, Your Honor.

17   THE COURT: Both?

18 BY MR. MORGAN:

19 Q.   I think you may have misunderstood the question.

20 A.   Oh.

21 Q.   Oh. Oh, no. I didn't. You got it. I'm sorry.

22   Did it match the results from running the

23 spreadsheet tool?

24 A.   So, if I can repeat your question in answering it to

25 make sure I understood it.

1   The results in the spreadsheet was "pass," which

2   indicated that the probability in Equation 2, its encoding of

3   it was greater than .98; and when I did it manually, I did

4   the same calculation. I also got a result greater than .98,

5   and so they matched in that sense.

6   THE COURT: For each file of interest on which law

7   enforcement node?

8   THE WITNESS: For each -- so, we should go through

9   each one, yeah.

10   BY MR. MORGAN:

11   Q.   Do spreadsheets get updated over time?

12   A.   Yes, they do.

13   Q.   And so have you vali- -- have you checked to verify that

14   this same validated formula that you're just discussing is

15   the same in the newer version?

16   A.   I checked the latest version of the spreadsheet, and I

17   looked at the corresponding cell in the latest version, and

18   indeed the formula is still encoded correctly in the latest

19   version.

20   Q.   Okay. I want to refer you to page 6 of the defense

21   expert report, which is Government's Exhibit Number 2. At

22   the bottom it has a list. Do you see the bulleted list

23   there?

24   A.   I do.

25   Q.   Do you recognize that list?

1   A.   I do. It's the criteria we used in our paper when

2   evaluating the false positive rate of the equation,

3   essentially, that I just discussed.

4   Q.   Okay. And so when you apply this criteria to the test

5   that you just mentioned, would you get that accuracy result

6   that you described?

7   A.   Correct.

8   Q.   What happens if you run the test with data that's not

9   conforming with all of those?

10 A.   Then it's possible that you would not get the same false

11 positive rate.

12   THE COURT: I'm sorry?

13   THE WITNESS: Then it's possible that you would not

14 get the same false positive rate.

15   THE COURT: That you would not get the same --

16   THE WITNESS: False positive rate that we measured.

17 It's possible that you would not. Because the question was

18 what happens if you don't.

19   Do you want to repeat the question just so we're

20 all clear?

21 BY MR. MORGAN:

22 Q.   What happens if you don't have data that's in conformity

23 with all those criteria?

24 A.   Then you might not get the same false positive rate that

25 we reported in the paper.

1   Q.   The 99 percent accuracy one?

2   A.   Yes. 1 percent false positive rate.

3   Q.   One false positive. So it could be lower than

4   99 percent?

5   A.   It could be lower. I mean, you just said what happens

6   if you don't. So, you could change these. It might be a

7   better false positive rate. Yeah.

8   Q.   I see what you're saying.

9   A.   But it could be lower.

10   Q.   It could be higher or lower?

11   A.   Right.

12   Q.   It would just be different?

13   A.   Right.

14   Q.   Potentially.

15   So, the data -- does the set of data that we are

16   talking about today in this case, that Trooper Mills had,

17   come from the data that the officer reviews and copies over

18   from ICACCOPS?

19   A.   Sorry. I couldn't hear.

20   Q.   Does the set of data that we're talking about come from

21   the data that the officer reviews and then copies over into

22   ICACCOPS? The data that gets put into the spreadsheet?

23   A.   Yes. Yes, that's the purpose of it.

24   Q.   All right. And where does that data come from?

25   A.   Oh, so where does the data in the spreadsheet come from,

1   or where does the data from ICACCOPS?

2   Q.   Just from the ICACCOPS generally.

3   A.   So, that data will come from law enforcement nodes that

4   are running from only trained law enforcement officers. That

5   data -- I think we've had a lot of testimony about this

6   previously.

7   So, to summarize, it's logged at those nodes. And

8   then it is sent to a particular server as a coordination

9   point. We've talked about that process at length, so I won't

10 review it here.

11   And then at the end of it, at the end of the day,

12 it appears on the ICACCOP website.

13 Q.   So, does the data that an officer might see for his

14 jurisdiction in ICACCOPS necessarily come from a node that

15 he's running?

16 A.   No. So, I mean, the short answer is no. But I can tell

17 you also when I first got involved with law enforcement, one

18 of their main problems is that they would sit down to do an

19 investigation, and then on a peer-to-peer network, your

20 neighbor, in various peer-to-peer networks, may not be in

21 your jurisdiction; however, you still have a lead that it's

22 useful to send to another jurisdiction.

23   I think this is probably the initial -- or I don't

24 want to say biggest, but one of the primary problems with

25 peer-to-peer is that in order to join the network, you're

1 going to end up with someone who's outside your jurisdiction,

2 and then you end up with information or a lead that you have

3 to give to a different law enforcement officer in another

4 jurisdiction.

5 Q.   So, would it be akin to someone in -- let's say

6 Colorado's police office giving a tip about a crime that

7 happened in Maryland?

8 A.   Exactly. I think that's a perfect analogy.

9 Q.   And then that tip would be sent to an officer or

10 displayed to an officer in Maryland?

11 A.   That's right. They could call them on the phone. They

12 could send them an email. They could use a website to

13 coordinate.

14 Q.   Okay. What if the data that that officer reviews in

15 ICACCOPS and then puts into a spreadsheet has some data that

16 conforms to the criteria that's listed here and some that

17 does not, could that result in a pass?

18 A.   Well, so, if some of the data conforms to the

19 requirements that we have here and it's a pass, and then you

20 add other data to it, it's going to retain the pass because

21 of the formula that I've authored with my coauthors. Once

22 you have a pass and you add further data to it, it remains a

23 pass.

24 Q.   So, even if there's extra unnecessary data that can come

25 over from ICACCOPS and put into the spreadsheet tool, it can

1 still result in a pass as long as there is passing data

2 somewhere?

3 A.   Correct.

4 Q.   Let's take the criteria one at a time.

5 A.   Okay.

6 Q.   So, the first one is: "All observations are requests

7 for blocks associated with the same manifest." Do you see

8 that one?

9 A.   I do.

10 Q.   Could you please explain that.

11 A.   So the goal of the technique -- the goal of everything

12 we're doing is to determine whether some particular file is

13 being downloaded. And I think we've talked even today about

14 how the manifests and the files -- they're 1:1. We can treat

15 them as 1:1.

16   So, our goal is to determine for some particular

17 file where we see these requests -- we want to focus on one

18 file. That's the short answer to your question.

19 Q.   Okay. And in your review of the defense expert's

20 report, did he notice that there were any issues with the

21 spreadsheet tool as relates to that particular criteria?

22 A.   Yeah. He did not.

23 Q.   Okay. So, the second one is that all observations are

24 of the same peer as identified by IP address and Freenet

25 location. Do you see that one?

1 A.   I do.

2 Q.   What does that mean?

3 A.   So, here what we're trying to do is focus on one

4 requester of the file, one neighbor that we have. And we

5 want to restrict to it just looking at one neighbor at a

6 time, one target at a time. And we identify them by

7 IP address or Freenet location. They're 1:1.

8 Q.   So, that second criteria in your review of the defense

9 expert's report, did he note any issues with the spreadsheet

10 handling of that?

11 A.   He did not.

12 Q.   And to the third one: "That all requests have a

13 consistent HTL." Can you explain that one to us.

14 A.   So, here if you use Freenet as, you know, as a -- if you

15 download it and don't make any adjustments to it, one would

16 expect that all the requests for a download that come from a

17 particular node have a single HTL. And so this is a way of

18 focusing the investigation on that.

19 Q.   Okay. And in your review of the defense expert report,

20 did the defense expert note any issues as it relates to that?

21 A.   He did.

22 Q.   Can you please explain that.

23 A.   So, what he did is he changed the data in the

24 spreadsheet manually, is my understanding, to introduce a

25 variety of HTLs and then pressed the analyze button.

1   Q.   Okay. And what was the issue, though?

2   A.   Well, the issue is that the spreadsheet allows you to

3   press the analyze button, is that what you're asking?

4   Q.   Right. Instead of what does it do now? You press the

5   analyze button and then what happens?

6   A.   It will take the data that you've given to it and it

7   will calculate the results of the formula, compare it to .98,

8   determine if it's a high confidence result, and display pass

9   or not.

10   Q.   You're saying it shouldn't do that if it doesn't meet

11   that criteria? It shouldn't allow you to push the button, I

12   should say?

13   A.   So, what he didn't do was -- he made a mistake. He

14   didn't filter.

15   Q.   Okay. So, let's talk about that. So, to address that

16   issue -- is it possible to address that issue?

17   A.   Yes.

18   Q.   Is it possible for the officers using the tool to

19   address that issue?

20   A.   Yes.

21   Q.   How so?

22   A.   Well, so, as it was discussed earlier today, the

23   spreadsheet has all the data listed in columns. At the top

24   of those particular columns, there's a little caret,

25   sometimes it's called. And that if you press that button,

1 that would bring up a little pop-up. And it would, for

2 example, in the case of HTL, Excel -- this is a feature of

3 Excel. It's not something that's created for the spreadsheet

4 Excel. It will show this pop-up. It will list all the HTLs.

5 You can pick exactly one, apply the filter, and then press

6 analyze.

7 Q.   You just said a lot there.

8 A.   I did.

9 Q.   I want to tease something out. That the filtering

10 function here, is that an ability that was created by law

11 enforcement in this tool?

12 A.   No. It's part of -- comes with every copy of Microsoft

13 Excel.

14 Q.   And so the spreadsheet itself already contains the

15 functionality to address the issue?

16 A.   It does.

17 Q.   Okay.

18   THE COURT: So, how would you address the issue?

19 So, I'm looking at the expert report on page 9, which is the

20 modified data, if I understand it.

21   Are you there? Because I want to understand what

22 you're saying.

23   THE WITNESS: If you don't mind, Your Honor. I'd

24 like to wait to see what you're referring to.

25   MR. MORGAN: Is this what you're referring to, Your

1 Honor? Page 9?

2   THE COURT: Yes. Page 9 of 17. This is my

3 understanding of the modified data.

4   What are you saying the filter would do

5 differently?

6   THE WITNESS: So, it's maybe hard to see where I'm

7 pointing to, so I'll try to be very verbal.

8   But if you look at what we're seeing on the screen,

9 there's different columns. One of the columns says HTL. And

10 then we can see that -- you know, like I said, my

11 understanding is the expert modified the data.

12   THE COURT: Right.

13   THE WITNESS: Do you see the caret? The downward

14 triangle next to the "L." So that's actually a button. And

15 with your mouse, if you click on it, a pop-up will come out.

16 And then Excel automatically for you will look at all the

17 unique values in that column, display them. And then you can

18 click one if you prefer. You press okay. The pop-up goes

19 away. And then the rows of the spreadsheet will be limited

20 to the ones for the HTL that you have selected.

21   THE COURT: And then you would hit "analyze."

22   THE WITNESS: Correct, Your Honor.

23   THE COURT: Because each of these rows is an

24 individual run.

25   THE WITNESS: No. Each of these rows is an

1 individual request for a block, Your Honor.

2   THE COURT: Okay. So if I'm looking at the figure

3 at page 9, each row is a what?

4   THE WITNESS: Each row represents a request

5 received by a law enforcement node for that -- from that

6 specific IP address or location for that particular manifest.

7 And given the date that we see for each line, for a

8 particular split key, et cetera.

9   THE COURT: And if you didn't filter and just hit

10 "analyze data," what would the spreadsheet do exactly?

11   THE WITNESS: It would run the formula on all the

12 rows that are contained there.

13   THE COURT: In the aggregate?

14   In other words, I don't understand. When you say

15 that, does it do it for each one and then give an aggregate

16 score, pass or fail?

17   THE WITNESS: If I may step back. Each file of

18 interest, what we're trying to do is to get it down to one

19 run and then press the analyze button. The runs are

20 consisting of a series of requests.

21   So, when you say "an aggregate," I just want to be

22 clear. You would do this once for if you were doing File of

23 Interest 1, you would press the analyze button, and that

24 considers all the rows that are listed a run.

25   And File of Interest 3 here, we might, in this

1 particular example again, construct it from the expert

2 report.

3   If what we'd like to do is ensure that we're

4 looking at just HTLs of 18, then what we would do is first

5 click the caret, the pop-up would come up, we'd select 18,

6 and then we would press the analyze button.

7   And in this case, what I've just described, the set

8 of requests that are left, that's considered the run.

9   And so the formula will take -- basically what

10 we're seeing here is the run. However, we've defined it as

11 the user.

12   So, this is a run that -- the next step is to

13 filter. This is a collection of requests that the next step

14 should be to filter. And then we press the analyze button.

15 Because pressing the analyze button says, "this is a run."

16   Does that clear things up, Your Honor?

17   THE COURT: Well, yes and no.

18   So, the problem that I'm having is I'm looking at

19 File of Interest 3, which is reflecting an IP address

20 presumptively asking for this particular file; am I right

21 about that?

22   THE WITNESS: Correct, Your Honor.

23   THE COURT: Okay. And the rows are each individual

24 request related to that particular file from that IP address;

25 am I right?

 1   THE WITNESS: Correct, Your Honor.

 2   THE COURT: What I'm not understanding is: Why

 3   would I filter it out? If they're all requests, right, that

 4   go to this particular file from this particular IP address,

 5   why would I filter out ones with fewer hops to live? Isn't

 6   that kind of -- don't I want to know whether all the runs

 7   from the IP address to this file pass? Or together would

 8   pass?

 9   In other words, it seems -- what I'm trying to get

10   at is it seems to be altering the data that would otherwise

11   be extracted to get the result you want.

12   So, why isn't it that?

13   THE WITNESS: That's a great question.

14   So, I'll answer directly, and then I'll try to give

15   you an analogy so as not to get caught into the analogy.

16   So, the direct answer is it's a better -- the

17   analysis is better when you filter down to just -- given how

18   Freenet works, it's better to filter down so that the result

19   is a higher quality.

20   It's actually -- so let me explain by analogy if

21   that doesn't work.

22   So, let's say that you're law enforcement, and

23   you're connected to me, and you're receiving your request

24   from me. Now, if everything's working correctly in Freenet

25   as designed, nobody's made any modifications to that, so if

1 it's running as designed and I'm the original requester, I

2 will send you a request. And it might come, say, as 17.

3 Now, as I make a request for that file, I'm not going to

4 change my HTL. I'm not going to make some of them 18, some

5 of them 16. We've talked about details in the past, but,

6 anyway, I'm going to send you 17.

7   Now, Counsel over here is also requesting the same

8 file. And so when he -- maybe he's even a relayer for

9 someone farther in the courtroom.

10   So, when he sends requests to me, they may come in

11 as a 14. And when I send them to you, they'll definitely

12 come as a 13. So, given that Freenet is operating as

13 expected, it makes sense to divide those up and say I know

14 that the set of requests you're receiving from a 17. You, as

15 law enforcement, can't be sure whether I'm the original

16 requester or not, but you know those requests for me from 17

17 don't go with the requests I'm giving to you with 13, I

18 believe I said.

19   So, the math, technically, doesn't require it.

20 Like, if everyone modified Freenet to randomize the HTL value

21 as they sent it out, then I would tell you the spreadsheet

22 should not do the filtering, and you should get all the data.

23   It's a precept to the actual formula what you give

24 it to -- what give it.

25   THE COURT: So, if I'm getting you right, it's

1 predicated on the fact that Freenet works this way. Freenet

2 says it's either going to be an 18 or 17 if it's the

3 requester requesting to the receiving node.

4   THE WITNESS: Yeah.

5   THE COURT: So, you're saying if you're running the

6 test right, those are the only subset you should be looking

7 at.

8   THE WITNESS: Yes. I'm agreeing with you. If

9 you're running Freenet -- if you're running the test under

10 the assumption that nobody has modified Freenet, then this is

11 the best way to run the formula.

12   THE COURT: Got it. Okay. I think I understand

13 it. Thank you.

14   THE WITNESS: Thank you, Your Honor.

15 BY MR. MORGAN:

16 Q.   To clarify that point a little bit further, too, you

17 need consistent HTLs; is that --

18 A.   Yes, you're looking for a consistent set of HTLs.

19 Q.   Right. And if it's inconsistent, like how it is with

20 this injected into it, you can still run the formula on it.

21 Are you saying it would be less accurate?

22 A.   Yes.

23 Q.   And so the most accurate way that you know of that's in

24 your paper would be to have -- to filter --

25 A.   Yes. Under the assumption everyone is running Freenet

1 as it's been designed.

2 Q.   Okay.   So, if you did and just, in the aggregate,

3 include all of it, good data, bad data, and run it, it would

4 be less accurate?

5 A.   Yeah.   I mean, assuming --

6 Q.   Potentially?

7 A.   Potentially.

8 Q.   All right.   Okay.   So we just discussed the hops to

9 live.   Okay.

10 A.   Yep.

11 Q.   Let me go back to the next criteria, which I will get

12 somewhere else.   Page 6 of his report.   Court's indulgence.

13   So, we've covered the first three; --

14 A.   Yes.

15 Q.   -- correct?

16   The first two there were no issues with noted by

17 the defense report.   And then we just discussed the third

18 one, the hops to live; correct?

19 A.   Correct.

20 Q.   All right.   So, now the fourth one.   "That a minimum of

21 20 requests for distinct blocks were observed."

22   Can you please explain what that is, why that's a

23 criteria.

24 A.   So, that's a criteria we added in the paper for

25 evaluating the technique.   We found that and it makes sense

1   statistically that the technique works better for larger

2   files. It's not a requirement of the formula. We put it on

3   because we knew it would lower the false positive rate.

4   Q.   It would be more accurate?

5   A.   It would be more accurate.

6   Q.   And did the -- in your review of the defense expert

7   report, did you find any issues with that in the spreadsheet?

8   A.   No.

9   Q.   Okay. So now we're down to fifth one, which is: "That

10 the duration between request does not exceed a defined

11 value." And can you explain what that criteria is and why

12 it's there.

13 A.   Yes. So, it's there again to lower the false positive

14 rate. Freenet takes a long time to download files. It's

15 unlike other systems. And by limiting the requests they are

16 analyzing to a small value, it helps avoid some false

17 positives.

18 Q.   So, it makes it more accurate?

19 A.   It makes it more accurate to do that.

20 Q.   And did the defense expert in his report notice any

21 issues with that particular one?

22 A.   He did.

23 Q.   What was the issue?

24 A.   So, if you go forward, you'll see that on one of the

25 screenshots that he made, he handcrafted, or altered, the

1   data by hand to change the date, I believe it was, of one of

2   the requests. Maybe it was the last one. So that it

3   occurred -- I think it was a thousand days in the future. So

4   the overall time span of the run was a thousand days.

5   Q.   And what happened when he ran that?

6   A.   I believe he got a pass by pressing the analyze button

7   directly.

8   Q.   And is this the one that you're referring to?

9   A.   Yeah.

10 Q.   This is page 12.

11 A.   Page 12. So I was right. It was a thousand days in the

12 future. If you look at the exhibit in front of us on the

13 very last row, it's a red box.

14   And you can see, you know, again, what I believe he

15 did manually was take the 2018 year and made it 2021 and

16 changed the month and so on. In fact, you can see up near at

17 the top, it says time span 1,000 days. So the spreadsheet

18 noticed this.

19 Q.   Where are you referring to where it says it?

20 A.   Starting from the top, we see "file of interest" in

21 orange. And then if you go down six rows down in green --

22 the color is not great, but I think it's green -- it says

23 time span 1,000 days.

24 Q.   So, if the user has data like this, if the user obtained

25 data like this, he would be able to see that the time span's

1 a thousand days long?

2 A.   Yes. I mean, first of all, the data's right in front of

3 him or her. Secondly, the line that I just referenced shows

4 the entire time span.

5 Q.   So, it's not hidden from the officer?

6 A.   It's not.

7 Q.   And is there any way to address it?

8 A.   Yes. So, just like we talked about for HTL, there's a

9 caret that allows you to select which HTL you would like,

10 given the data that's in front of it.

11   Excel has a filter for dates and times. It's

12 actually quite nice. Rather than showing each individual row

13 to make it really difficult, it will actually show the year.

14   And then you can click -- you can, in a

15 hierarchical way, you can say, Okay, I want to see something

16 more granular. And it will say, Okay, within this year there

17 was June. In fact, in this example, it would show 2018 and

18 2021. And if you expand it on 2018, it would say, Okay,

19 these were all in the month of June.

20   And then you could expand that further to the

21 particular day. You could expand it further to the

22 particular minute.

23   So, in short, Excel makes it easy for you to filter

24 the dates in a nice, I think, reasonably for Microsoft,

25 user-friendly way to filter the dates that you want.

1   And that's the misstep that, in my opinion -- no

2   disrespect, but that's the step that's missing from this

3   report, let's put it that way. That should have been done

4   before the analyze button was clicked.

5   Q.   Okay. And that the defense expert didn't filter it, is

6   that what you're saying?

7   A.   Correct.

8   Q.   And just to go back to what we were speaking of a moment

9   ago about the spreadsheet itself displaying the time or the

10   time span, I'm showing you what was on page 11, the page

11   right before it.

12   A.   Yeah. That looks to be File of Interest 3. And I

13   didn't prepare this. The defense expert did. But here the

14   way that he prepared it was not to show the data. So, it's a

15   cropped screenshot.

16   And here you can see in the original -- I believe

17   if you look at the sentence before, I believe he's confirming

18   that this is the original data, and it says 28 minutes and 18

19   seconds.

20   And if you flip, if you don't mind, to the next

21   page, instead of a cropped screenshot, we see the larger

22   viewpoint. And now we see that same line says 1,000 days and

23   28 minutes and 18 seconds.

24   Q.   So, this -- are you saying this is the same file of

25   interest?

1   A.   It appears that way to me. File of Interest 3.

2   And then if you turn to the next page, it's still

3   File of Interest 3.

4   Q.   So, if the user -- the defense expert himself, was able

5   to see right there in that row that you mentioned that the

6   time span was 28 here, and then when he modified the data, he

7   could plainly see it there? Is that you're saying?

8   A.   Yes. In fact, it's on there twice. I don't know if you

9   noticed that.

10   Q.   I'm sorry?

11   A.   If you go back. Okay. So, before I point out time span

12   is a thousand days, if you move your eyes a little bit to the

13   right and go up one line. The total time span in black is

14   24,000 -- it must be minutes, I'm guessing. Or hours.

15   24,000 hours, 28 minutes, and 18 seconds. So it's there

16   twice.

17   Q.   And when the user brings over the data that they've

18   observed on ICACCOPS that they want to put into the

19   spreadsheet, do they have to push a button to be able to see

20   that?

21   A.   That's what the import data does, is it brings up these

22   values.

23   Q.   So, it's there automatically?

24   A.   Correct.

25   Q.   Okay. And the defense experts -- we've worked our way

 1   through with these five criteria. And we've discussed the

 2   two that the defense expert noted there were issues with.

 3   Did the defense expert also know there's one other

 4   issue that didn't come from this list of five criteria?

 5   A.   That's right. The formula should be run on requests

 6   that were received by one law enforcement node at a time.

 7   So that's another criteria that he examined.

 8   Q.   And what was the -- what did he note about that?

 9   A.   He noted -- maybe you want to bring it up. But he noted

10   that if there's multiple law enforcement nodes, you can still

11   press the analyze button and it will give a result.

12   Q.   I'm showing you the defense report, page 10.

13   A.   Sorry to talk over you. I apologize to the court

14   reporter.

15   Q.   Go ahead.

16   A.   So, in this example, again, I believe this was done by

17   hand. And so here if you look at the column that says

18   LEID, Law Enforcement ID, they run sequentially 2145, 2146,

19   and so on.

20   And if you look right above that column and you get

21   to the blue text, it says 20 law enforcement nodes found.

22   So, the spreadsheet noticed this and reported it

23   visually to the user.

24   Q.   Okay. And so how could -- can that issue be addressed?

25   A.   Yeah. So, the correct way to address this is to press

1 the filter button. Again, I think we've been through this

2 already, but Excel will bring up a little pop-up. It will

3 list for this particular data the unique Law Enforcement IDs

4 that are present. And the user would click and limit it to

5 one Law Enforcement ID, press okay.

6   And when you -- when the window disappears, the

7 rows would be filtered down to just the rows relevant to that

8 Law Enforcement ID.

9   THE COURT: So, I just have a really basic

10 question.

11   THE WITNESS: Yes.

12   THE COURT: If the answer to every raised error is

13 you have to filter, then, again, why isn't that the law

14 enforcement officer just filtering out any potential

15 problems?

16   I mean, in other words, if you're just filtering

17 out all of the criteria that is in the paper as the inclusion

18 criteria, then isn't it always going to be a pass? Like, can

19 you give me an example of when it won't be a pass?

20   THE WITNESS: Oh, yes, Your Honor. If you don't

21 mind going to my declaration.

22   MR. MORGAN: Yes.

23   THE WITNESS: Find one of -- I don't have it in

24 front of me. It might be easier for me to quickly find the

25 correct example.

1   THE COURT: Sure. From your report?

2   THE WITNESS: Yes.

3   THE COURT: The supplemental report?

4   THE WITNESS: Yes.

5   THE COURT: All right.

6   THE WITNESS: So, maybe put this back. I'm going

7 to look at Figure 4, Your Honor, on page 12.

8   THE COURT: Okay. I'm there.

9   THE WITNESS: I'm not sure this is the best one.

10 But here we see -- okay.

11   So, if you don't mind, I will point out a couple

12 different things. So, the first is do you see the date/time,

13 port, Row 11, date/time, port, type.

14   Before we talked about the carets that are next to

15 it. In fact, you can see for port and time and peers, it's

16 still the caret. It's a little hard to see in the

17 reproduction.

18   THE COURT: Yep.

19   THE WITNESS: But you might notice next to

20 date/time, it's no longer a triangle. It's actually a

21 funnel. It's a filter or sieve. It's hard to make out.

22   Then next to Law Enforcement ID, there is also the

23 filter icon. That, again, comes from Excel. It's not

24 specific to this spreadsheet, and it's an indication visually

25 to a user that a filter is in effect.

1   And another visual indication is if you look on the

2   left, normally in every figure we've seen up to today -- up

3   till now, the row numbers appear on the left. And if you

4   start looking at 152, Your Honor, after date/time it says

5   152, 155, 157. And that's another visual indication that

6   some rows have been taken out.

7   THE COURT: Okay.

8   THE WITNESS: And then, Your Honor, I prepared

9   this. So, after I did this filtering -- do you mind zooming

10 out the tiniest bit to show the caption?

11   So, here actually -- I don't say it in the caption;

12 but, anyway, I filtered this down to the law enforcement

13 node 2145. And then I've pressed the button. And then you

14 could see it says "fail."

15   THE COURT: Got it.

16   THE WITNESS: So, there's another example in here

17 if you want to go. But there's several examples in my report

18 where this occurs, Your Honor.

19   THE COURT: Yep. You're right. I see it. Where

20 you're using the filters and nonetheless you have a fail.

21   THE WITNESS: Yes.

22   THE COURT: Okay. Very good. Thank you.

23   THE WITNESS: You're welcome.

24 BY MR. MORGAN:

25 Q.   If anything, does parsing out data by filtering make

 1 it -- is it a more conservative approach or more aggressive

 2 approach? Is it more accurate to filter it or less accurate?

 3 A.   It's more accurate to filter out the data because you're

 4 removing information from the formula to consider.

 5 Q.   That could make it less accurate; right?

 6 A.   Correct.

 7 Q.   I want to bring you back real quick just for one point

 8 on the defense expert report, page 15. Do you notice

 9 anything about the filtering in this file of interest?

10 A.   Yeah. I think there's a number of things to notice

11 here. The first is, again, looking at the column headers.

12 Here we say date/time, port, type.

13   HTL peers all have the caret, but it looks to me

14 that the defense expert used the filter to bring this down to

15 just one node. So I mean, this is filtered.

16   Right above it, it says filters active. Filtered

17 rows, 1.

18   The spreadsheet is designed to be filtered. I

19 mean, the word "filter" appears all over it. There's a

20 button in red that says "Reset all filters." You don't

21 always need to filter, I want to point that out; but it's

22 available to you.

23 Q.   And so we'll get to that, too.

24 A.   Okay.

25 Q.   So, are you saying here that the defense expert knew

1   that you could just filter it, as well?

2   A.   I mean, that's the logical conclusion I drew because

3   this is his report. And you have to turn filtering on with a

4   mouse click. So, he knew it was available.

5   Q.   Just by clicking that button, you mean?

6   A.   Just by clicking that button.

7   But it doesn't -- in this version of the

8   spreadsheet, you have to do it yourself.

9   Q.   Okay. All right. I'd like to turn now to your report,

10   page 10, your analysis of file of interest.

11   A.   File of Interest 2, is that what you said?

12   Q.   Yes.

13   A.   Okay.

14   Q.   So, did you review what Corporal Mills did on File of

15   Interest 2?

16   A.   I did.

17   Q.   All right. What did you learn?

18   A.   When I looked at his version of the -- when I look at

19   what he did, he ran the test on a pass and he did not use the

20   filter button.

21   But -- I'm sorry. I didn't say that clearly. I

22   looked at what he did. What he did is arrived at a

23   conclusion of pass for running the spreadsheet, but he did so

24   without running the filter.

25   Q.   And did you run this test?

1 A.   I did.

2 Q.   What result did you get?

3 A.   So, that's what we're seeing in front of us. I ran it,

4 and the first thing I did was filter down to 2161. And

5 you'll notice, again, that you can see the -- it's very hard

6 to see on the screen, but I think hopefully everyone can see

7 that. It's the little filter icon in that column indicating

8 that I'm using it. And then I pressed the analyze button.

9 And I actually arrived at the same result of pass.

10 Q.   Okay. So Trooper Mills failed to filter it and got a

11 pass?

12 A.   Correct.

13 Q.   And then you found that if you run it with filtering,

14 you also get a pass?

15 A.   Correct.

16 Q.   Okay.

17   THE COURT: Which law enforcement node was

18 Trooper Mills? Was he 2125 or 2161?

19   THE WITNESS: So, Your Honor, I don't know the

20 answer to that question. It's possible he was one of those.

21 But like we talked about, it's possible that you're law

22 enforcement in Texas and you're running this.

23   By analogy, you might receive a phone call from

24 someone saying, I would like to report a crime and it

25 involved someone in Maryland. You say, well, unfortunately,

1 that's not part of my jurisdiction, and you call over to

2 Maryland and bring that lead to them. You could also do that

3 by email and you could do that by a website.

4   And like I was saying, Your Honor, when you run a

5 peer-to-peer program, especially in the context of crimes

6 against children where it's network forensics that you're

7 concerned with, you can't control, as law enforcement, who is

8 next to you, so to speak, on the network.

9   So, very similarly, in Texas, they may run the

10 Freenet law enforcement software, and our goal was to not

11 have them do anything that was any different from anyone else

12 running Freenet, because our fear was that maybe that would

13 bias the results in some way.

14   So, when Texas gets online, runs the Freenet

15 software, the person who's requesting files from them may be

16 from Maryland. And so at that point we could have designed

17 something very inefficient where we printed out a PDF for the

18 Texas law enforcement officer. He or she could have called a

19 person in Maryland. But that's inefficient and error-prone,

20 and so, instead, we had this automatic leads page generated

21 through some software. And that way, for example, Corporal

22 Mills, as he testified, could sit down, look at the leads for

23 Maryland that perhaps someone in Texas discovered, and then

24 he can take part in the investigation.

25   Similarly, we also developed tools for BitTorrent

1   and Gnutella. They all work the same way, in that what's

2   similar about them is that there's an observation of what

3   appears to be a crime against a child. Again, perhaps by

4   someone in Texas. And that information is given to someone

5   in Maryland, say.

6   Now, the process for Gnutella or BitTorrent or

7   these different peer-to-peer networks is very, very

8   different. They're different. You can't use one software on

9   the other.

10   So, here, I mean, it is very common to have leads

11 in some. It's very common to have leads in one jurisdiction

12 that need to be sent to another jurisdiction; otherwise, you

13 couldn't run these investigations.

14   That's where they were when I first started talking

15 to them. I am from Massachusetts. I contacted Massachusetts

16 law enforcement. I asked them about how they do things. And

17 he said, I ran an operation for three days. I believe it was

18 Gnutella. I gathered all this information about crimes

19 against children. Everything we gathered I forward to other

20 jurisdictions.

21   And my supervisor said to me, you just spent three

22 days. And, unfortunately, I need you to do work in our

23 jurisdiction. Like, I'm glad you helped these children, but

24 I need you to be more efficient.

25   So, this is how law enforcement can do this under

1 constrained resources.

2   THE COURT: Let me make sure I just understand the

3 basics.

4   So, I'm looking at the Freenet target summary that

5 Corporal Mills used?

6   THE WITNESS: Correct.

7   THE COURT: And the one that you used in your

8 supplemental report, it appears as if what you did was

9 isolate each law enforcement node and do the math and then do

10 the run filtered based on the node; am I right about that?

11   THE WITNESS: Yes, Your Honor.

12   THE COURT: Looking at the Freenet target summary,

13 can I -- is it possible that none of these are Corporal

14 Mills's law enforcement node?

15   THE WITNESS: Yes, your Honor.

16   THE COURT: So if I get it right, the law

17 enforcement node, or the software that they're using, it does

18 two things. One it acts as a node. But then, two, it

19 receives the information from other nodes, which is that

20 leads page that he was talking about today.

21   THE WITNESS: I would say more accurately, Your

22 Honor, that they are running software that is observing

23 requests that become leads for about possibly their own

24 jurisdiction.

25   THE COURT: Right.

1   THE WITNESS: But probably more often for someone

2   else's.

3   Secondly, as users, they are going to ICACCOPS.

4   They are observing what's there. They decide to enter into

5   an investigation. They do all the things that -- I was in

6   the courtroom, Your Honor, --

7   THE COURT: Right.

8   THE WITNESS: -- that Corporal Mills testified to,

9   looking at the runs on the website, downloading the file,

10   doing a subpoena, doing surveillance, visually describing

11   what they saw.

12   THE COURT: So, there's nothing I can see from

13   Freenet target summary that is necessarily the node

14   Corporal Mills was running. They're two separate things.

15   THE WITNESS: Not necessarily. But what he

16   observed were the leads, possibly.

17   THE COURT: Yes. So, put it differently. Each

18   number law enforcement node is a unique node; right? So,

19   2145 shows up. It's the same node. It just may or may not

20   be Corporal Mills.

21   THE WITNESS: Correct, Your Honor.

22   THE COURT: Now I get it. Okay. Thanks.

23   BY MR. MORGAN:

24   Q.   And so does whose node it is or which jurisdiction that

25   node is in, does that affect the accuracy at all of the

1 results?

2 A.   Not only does it not affect the accuracy, I mean, it's

3 not -- well, no, it does not.

4 Q.   So, there's -- just to be clear, is there such thing as

5 a law enforcement node; right?

6 A.   Correct.

7 Q.   And what you just described. And then there's ICACCOPS,

8 okay, which -- what does ICACCOPS do generally?

9 A.   So, as has been talked about in prior testimony, I'm

10 just going to call the whole system ICACCOPS.

11   So, this data that's observed by law enforcement

12 nodes, it will be logs of these observations that will be

13 sent to ICACCOPS.

14   There's a process we've talked about in the past

15 where it's verified that this is, in fact, a request for

16 something that law enforcement believes is relevant to crimes

17 against a child.

18   A lot of process we've talked about.

19   And then it will appear on a web page. And law

20 enforcement can sit down and say -- they log in, they're

21 trained. Only once they're trained do they get access. Once

22 they're there, they say, I would like to know what happened

23 in my jurisdiction. Perhaps someone in Texas noticed

24 something that's relevant to me.

25   Just as they would with sit down and hear about a

1 NCMEC cyber tip report that happened in their jurisdiction is

2 reported to them, say, from Facebook in California and routed

3 through.

4 Q.   So, is the location of the node or the user of the node,

5 operator node, important or relevant at all to the

6 functioning of your formula and this spreadsheet?

7 A.   Only relevant in that we're expecting it to get from --

8 the system is designed to get observations that were logged

9 by our software. Nobody can type this information in.

10   So, given that it came from ICACCOPS, it's not

11 relevant which node it came from.

12 Q.   Okay. So, you're saying it's just relevant only to the

13 point just to make sure that it's a law enforcement node?

14 A.   Yes. Yeah, that's all.

15 Q.   Got it. Thank you.

16   Okay. So, we were discussing on this one, on page

17 10, that you had ran this with the filtering.

18 A.   I did.

19 Q.   To recap, Corporal Mills ran it without the filtering

20 and got a pass?

21 A.   Correct.

22 Q.   You ran it with the filtering and your result was pass?

23 A.   I also got a pass.

24 Q.   Okay. So, how is it that you filtered and got a pass;

25 that both of you got a pass? That you filtered and got a

1 pass and he didn't filter and got a pass, how is that

2 possible?

3 A.   Because his data -- so let's start with my view of the

4 data. And my view of the data, I filtered it down, and I saw

5 that there is a pass in the data. Once -- I said this

6 before. Once you have a pass in the data for a particular

7 file of interest and then you include other data, it will

8 remain a pass.

9   So, in essence, he had a pass -- in this particular

10 case, he had a pass. And then it was in there. And the

11 formula picks up on that. And so it remained a pass.

12 Q.   Okay. So, the mistake that Corporal Mills made by not

13 filtering had no effect on the result as it pertains for File

14 of Interest 2?

15 A.   No effect on the end result of pass.

16 Q.   Okay. Did you do some additional analysis on this

17 particular File of Interest 2?

18 A.   I did. I filtered for the other, one of the other --

19 actually, all of them.

20   But if you go to the next, must be the next page,

21 you'll see a different filtering. So, this was 2161. I

22 can't see the caption, but I think this is the same.

23   Yeah. Up at the top it says the same file of

24 interest, and now I've filtered to 2145. I've also used the

25 date/time filter. You can see that on the left. I pressed

1 the analyze button; and, again, we come up with a pass.

2   So, the net result is for File of Interest 2, one

3 law enforcement node observed enough requests to pass this

4 formula.

5   Concurrently, for the same downloads for this IP

6 address, a different law enforcement node also saw requests

7 that passed this statistical test.

8   Either one is sufficient, but both of them are

9 going to cause, when Corporal Mills ran the data on all of it

10 together without filtering, to stick with the pass.

11 Q.   So you're saying not only was there a pass, it's a

12 double pass?

13 A.   There's a double pass here.

14 Q.   In File of Interest 2?

15 A.   Yeah.

16 Q.   Okay. All right. Let's look at File of Interest 3,

17 which is page 12 of your report. Did you review what Trooper

18 Mills did as it relates to File of Interest 3?

19 A.   I did.

20 Q.   And what did you observe?

21 A.   So, he did not filter the data, but he got a pass for

22 the stat tests that -- cell D1, as we see here, in his

23 spreadsheet.

24 Q.   And did you do it with filtering?

25 A.   I did. And hopefully everyone's following. They can

1 see, again, the resolution's not that great. But the caret

2 remains for all the columns except for the Law Enforcement

3 ID column. And there you can see visually that I've employed

4 a filter to reduce it down to 2145. You can see Row 31 is

5 skipped, for example. And then I press the analyze button

6 and I got a pass.

7 Q.   Okay. So, when Corporal Mills made the mistake of not

8 filtering, he still got -- and he got a pass?

9 A.   He did.

10 Q.   And you did the filtering and also got a pass; is that

11 correct?

12 A.   That's correct.

13 Q.   All right. So, did the mistake that Corporal Mills made

14 by not filtering have any effect as it relates to the

15 result --

16 A.   Not on the bottom line, no.

17 Q.   -- of File of Interest 3? Okay.

18   And, again, here, how did he get a pass without

19 filtering?

20 A.   He got a pass because the data he was looking at

21 contained a pass. How do I know there was a pass? Because

22 as we're looking at it, I did it in the spreadsheet here, and

23 I also did it manually as an appendix to my report.

24   So, because he had a pass, he retained the pass

25 when he analyzed it without filtering.

1 Q.   Okay. We skipped over File of Interest 1.

2 A.   We did.

3 Q.   Let's talk about it. On page 7 of your report. Did you

4 review what Corporal Mills' data as it relates to File of

5 Interest 1?

6 A.   I did.

7 Q.   What did he do?

8 A.   He -- he pressed the analyze button without filtering

9 and got a pass. And this was the correct thing to do.

10 Q.   Okay. What do you mean it was the correct thing to do?

11 A.   Well, so, this is my -- what we see on the screen is my

12 use of the spreadsheet. And as I've explained many times

13 already, the carets indicate that a filter is available but

14 not in use.

15   And you could see that I'm not using any filters.

16 They are not required here. The date range is acceptable.

17 The HTLs are all one consistent HTL. It's all one Law

18 Enforcement ID. No filtering is necessary. I pressed the

19 analyze button and I got a pass.

20   As I said in the appendix, I also do manually the

21 calculation outside the spreadsheet, and it's the correct

22 result.

23 Q.   So, filtering wasn't even required for this File of

24 Interest 1?

25 A.   Correct. So, filtering is not always required to run

1 the statistical test in the spreadsheet.

2 Q.   But if it is required, are they able to do it in the

3 spreadsheet?

4 A.   They are.

5 Q.   And you reviewed the defense expert report; correct?

6 A.   I did.

7 Q.   Did he make any note whatsoever that you recall about

8 File of Interest 1 passing?

9 A.   He did not talk about file of Interest 1, other than to

10 say that he reviewed the spreadsheet for File of Interest 1.

11 Q.   Okay. You were here during Corporal Mills's prior

12 testimony in the previous hearing as well, right?

13 A.   In previous hearings I was here for his testimony.

14 Q.   Do you recall him saying -- and it's in the transcript,

15 it is our Exhibit 8 at page 198, "I was trained that I need

16 three. And what I was explained is that it is to show that

17 it is not an isolated incident; that it is to basically

18 assist in providing that the data is sound and correct."

19   Do you remember him saying that?

20 A.   I do.

21 Q.   Are three files of interest needed in order to assist in

22 providing that the data is sound and correct?

23 A.   Not for any scientific or mathematical reason.

24 Q.   Okay. So, you're not -- are you aware of any

25 mathematical or scientific reason that you would need three

1 files as opposed to some other number?

2 A.   There is none. I've testified this when I was here

3 earlier, Your Honor. The paper that I wrote -- both papers

4 make no mention of requiring three files of interest.

5   I can say more constructively, you need only one

6 file of interest to pass the test to meet the low false

7 positive rate that we discussed in the paper.

8 Q.   The less than 1 percent?

9 A.   The less than 1 percent false positive rate. Not more

10 than 1 percent.

11 Q.   Right. Thank you.

12   Did you ever tell anyone that they needed to use

13 three files of interest in order to have the data be sound

14 and correct?

15 A.   I've never told law enforcement or anyone that you need

16 three files.

17 Q.   And did the defense expert in his report say that you

18 needed three files?

19 A.   No.

20 Q.   Did you note that anywhere?

21 A.   He did not.

22 Q.   Okay. Do you know why Trooper Mills said that?

23 A.   No.

24 Q.   Okay. This spreadsheet tool itself, do you have to use

25 three to run the tool?

1 A.   No.   You can run one file of interest, press analyze

2 data, and in the summary there will be one file of interest.

3   There's no requirement that you use all three. You

4 can use two. You can use three. I've seen cases where

5 people -- I don't know if they were submitted as evidence.

6 I've seen people --

7   MR. ROBBINS: Objection.

8   THE COURT: Sustained. Go ahead. Move on, please.

9 BY MR. MORGAN:

10 Q.   Did you yourself use the spreadsheet tool with just one

11 file of interest?

12 A.   I have seen that. I myself have entered one file into

13 it and seen that it works just fine.

14 Q.   You mentioned before that the spreadsheet tool can be

15 and has been modified --

16 A.   Correct.

17 Q.   -- over time.

18 A.   Correct.

19 Q.   And do you know if the spreadsheet tool has been

20 modified at all?

21 A.   I do.

22 Q.   Since 2018, back when Corporal Mills used it?

23 A.   Yes. So, new features that have been added that would,

24 for example, address some of the concerns that we have here

25 today.

1   MR. MORGAN: Thank you, Your Honor.

2   THE COURT: Mr. Robbins or Mr. Finci?

3   MR. ROBBINS: Thank you, Your Honor.

4   CROSS-EXAMINATION

5 BY MR. ROBBINS:

6 Q.   Good afternoon, Dr. Levine.

7 A.   Good to see you again.

8 Q.   This is our third time?

9 A.   I believe so.

10 Q.   All right. I didn't hear anything you said today sound

11 like you were walking away from your peer-reviewed paper

12 where you had that punch list of five items that are required

13 to have a valid run. Do you still stand by that; correct?

14 A.   I stand by that in the paper. We had those requirements

15 in order to evaluate the false positive rate, correct.

16 Q.   And as I understand what you're saying here today is

17 that the Excel spreadsheet doesn't really test for those five

18 items. There are filters to address those five items, but

19 the spreadsheet doesn't automatically address them?

20 A.   In this version of the spreadsheet, there are filters

21 available for the users to address those concerns, but it

22 does not automatically test for it.

23 Q.   So, if the users aren't cognizant of what they're

24 supposed to do, then the results that appeared in

25 Mr. Miglianti's report could happen if data -- if they ended

1   up picking up data that had some of those anomalies?

2   A.   So, in this case, as I said, there was a run that was

3   positive that met the criteria. And so as a result of not

4   filtering, the pass remained a pass.

5   Is that your question?

6   Q.   Not exactly. I'll come back to that in a second, as

7   well.

8   A.   Okay.

9   Q.   Take the wild date change that Mr. Miglianti put in

10 there.

11 A.   Okay.

12 Q.   Obviously he's seeing if he can break the tool. That's

13 what he's doing. Agreed?

14 A.   Agreed.

15 Q.   So, he's going to put in data that is different than

16 actually exists in this case?

17 A.   Correct.

18 Q.   And he's checking to see if the tool will say, Wait a

19 minute; that's no good. That's the way you understood what

20 he was up to?

21 A.   I agree.

22 Q.   All right. If I'm understanding your testimony today,

23 you're saying the tool's not supposed to worry about that.

24 A.   No. I'm saying that the tool is a part of a process

25 that includes filtering.

1   Q.   But the tool doesn't automatically consider that issue.

2   A.   This version of the tool does not automatically consider

3   that issue.

4   Q.   Does the new one?

5   A.   Some of the issues that we talked about today are

6   automatically considered.

7   Q.   Reassuring.

8   You say today that because there's one good run

9   that passes that, the fact that there was no filtering and

10 that there were these other bad runs included really has no

11 impact on the outcome.

12 A.   It doesn't change the outcome. I'm explaining why he

13 got a pass.

14 Q.   He gets a pass because there's one pass in there and the

15 rest of it's just surplusage, in a way?

16 A.   Correct.

17 Q.   Does it change the outcome in the number of files -- no,

18 in the number of block requests that the spreadsheet reports?

19 The total number of block requests.

20 A.   Does what change the number?

21 Q.   The fact that there are runs included because it wasn't

22 filtered.

23 A.   Yes.

24 Q.   And the change there changes what goes into the

25 auto-write text that the tool gives the trooper to present in

1 his affidavit.

2 A.   Correct. If you don't filter, then what you're

3 observing is all of it. And so what should be reported is

4 that you observed all of it.

5 Q.   I'm not challenging you on a scientific basis, trust me.

6   That's fairly consistent with what you said, even

7 back in October of 2021, when you said the most important

8 thing is the stat pass. That is all that matters?

9 A.   I don't have that testimony in front of me; but in the

10 end, the action the officer takes is based on the pass, if

11 that's what you're saying.

12 Q.   And the stat pass is the block that holds your formula?

13 A.   Correct.

14 Q.   In your concern about the things that make a good run,

15 one of them was -- and this is one of the ones that you said

16 wasn't challenged by our expert -- that all observations are

17 requests for blocks associated with the same manifest.

18   Is there a place in the spreadsheet where that

19 issue even arises?

20 A.   Well, because the spreadsheet, as we've talked about, I

21 think the answer is no. But because the reason is -- I'm not

22 sure what you're asking.

23   But because you get data from ICACCOPS, the data

24 you get from ICACCOPS can only come from one at a time, one

25 IP address, one manifest at a time. Yeah, there's no

1   opportunity to introduce what you're saying.

2   Q.   Right. It's already bundled by somebody other than the

3   affiant.

4   A.   Just like -- yes.

5   Q.   So, that's not really something that we would expect the

6   spreadsheet to be checking.

7   A.   I agree.

8   Q.   Okay. When you told the Government that there's no

9   reason to require block requests for three different files,

10 you were purely speaking from the impact on your formula;

11 correct?

12 A.   Just earlier today?

13 Q.   Yes.

14 A.   Yeah, I believe what I said was there's no scientific or

15 mathematical reason.

16 Q.   So, from your perspective -- and I'm not faulting you on

17 this because it's not your part of the picture -- but from

18 your perspective, whether someone asked for the file by

19 accident or on purpose has nothing to do with the scientific

20 validity of you identifying that node as being the requester.

21 A.   Yeah. The goal of the test is -- I think we can agree

22 I've been pretty clear. I've always been careful to say

23 you're deciding between: Is the node that's sending you the

24 request the downloader, the original downloader or the

25 relayer?

1 Q.   So, whether it should be one file or three is really

2 outside of your lane?

3 A.   Yeah.   Yes.

4 Q.   You talked about the data being --

5 A.   May I ask you to go closer to the mic.   I'm sorry.   I'm

6 not as good at hearing as most people.

7 Q.   You talked about the data being reliable because it

8 comes from LE nodes and trained LE officers.

9 A.   Well, I'm not sure what I said exactly earlier, but what

10 I meant was, if you allow me to clarify, the assumption is

11 it's coming particularly from those nodes.

12 Q.   I wasn't sure what you meant at the time you said it.

13 That's why I asked.

14 A.   I apologize for being unclear.

15 Q.   When you talked about the potential of a double pass,

16 specifically there is a double pass in this case in your

17 analysis, does the spreadsheet eliminate duplications of

18 split keys that maybe go two directions at once?

19 A.   Doing this from memory, but my recollection is that it

20 would -- so I think to clarify your question, let's say there

21 are two law enforcement nodes that haven't been filtered out.

22 Law Enforcement Node A has Split Key 1, just to keep the

23 numbers simple.   Law Enforcement Node B also receives a

24 request for Split Key 1.

25   And you're asking me: Would that duplicate be

1   counted? It would be counted is my recollection of how it

2   works. And that would actually tend towards a not pass.

3   Would it reduce the total number of requests. And so it

4   would have an effect of having the formula tend towards a

5   final probability that's lower than .98. Towards 0, in other

6   words.

7   Q.   In the spreadsheet, not just in your --

8   A.   In the spreadsheet.

9   MR. ROBBINS: If I may have a moment, Your Honor.

10   THE COURT: Sure.

11   MR. ROBBINS: Thank you, Your Honor. We have no

12 more questions.

13   THE WITNESS: Thank you, sir.

14   THE COURT: Okay. Doctor, can I just clarify some

15 basic stuff with regard to your supplemental report.

16   THE WITNESS: Of course, Your Honor.

17   THE COURT: It looks like you ran six separate

18 runs; am I right about that? I see Runs 1 through 6.

19   THE WITNESS: Correct, Your Honor.

20   THE COURT: Okay. And you got this information

21 from the raw data that was provided by Corporal Mills?

22   THE WITNESS: Correct, Your Honor.

23   THE COURT: Through the government?

24   THE WITNESS: Correct, Your Honor.

25   THE COURT: Okay. Now, I'm comparing your report

1 to the Freenet -- the target summary that Corporal Mills has

2 attested was part of his file. It appears as if he has

3 seven.

4   So, there's -- File of Interest has 1, then 2

5 through 5 is File of Interest 2, and then File of Interest 3

6 has 6 and 7.

7   So -- and I think the one that is not in your

8 report is a Law Enforcement Node 1809 for File of Interest 2.

9   THE WITNESS: If I could look at my report, I could

10 see what you're referring to.

11   THE COURT: Please do. I just want to know if it's

12 inadvertent, if there's a reason, if I'm missing it?

13   THE WITNESS: I think I know why, but if I could

14 look, if that's okay.

15   THE COURT: Yep.

16   THE WITNESS: So, Your Honor, if you look at the

17 very last page.

18   THE COURT: Yeah.

19   THE WITNESS: Actually, I'm missing a page. But if

20 you look at -- I'm sorry. Before I answer. I'm going to

21 reorder. Is that okay? I have it. I just want to reorder.

22 This is a little bit out of order. I don't want to misspeak.

23   Yes. Okay. Okay. So, Your Honor, if you look

24 at -- I'm sorry if I'm not speaking into the mic. Let's go

25 to page 9 to orient ourselves.

1   THE COURT: Okay. I'm there.

2   THE WITNESS: And so I guess it's called appendix

3   section. Appendix.3. File of Interest 3. And so then I do

4   Run 2.

5   THE COURT: Yep.

6   THE WITNESS: And that's A31. Section A32 is Runs

7   3 and 4.

8   THE COURT: Right.

9   THE WITNESS: And then I'm at the bottom of

10 page 10.

11   THE COURT: Yeah.

12   THE WITNESS: And this is what you're saying.

13   THE COURT: Ah, there it is.

14   THE WITNESS: There is one request from File of

15 Interest 2 logged by Law Enforcement 1809, and I have the

16 date, which we can ignore due to its HTL value of 16.

17   And I say, finally, there is one question for FOI 2

18 logged by Law Enforcement Node 1921, which we can ignore due

19 to its HTL value of 16.

20   THE COURT: So, 1809 and a run --

21   THE WITNESS: A single request from 1921.

22   But let me make sure I'm seeing the correct thing.

23 Yeah. That's correct, Your Honor.

24   THE COURT: I see 1921. I see 1809. Okay.

25   So, what ended up happening, if I get it right, is

 1 those two were eliminated. If they weren't eliminated, would

 2 they be considered fails?

 3   THE WITNESS: I would say that we don't run the

 4 test on them.

 5   THE COURT: You just don't run the test because

 6 it's 16 and it should be --

 7   THE WITNESS: Correct.

 8   THE COURT: -- just not part of the test?

 9   THE WITNESS: Can I ask a clarifying question,

10 because I don't have it in front of me.

11   When you're looking at the first page of the

12 Freenet target summary, Your Honor, you're talking about the

13 summary where it lists the nodes --

14   THE COURT: Yes.

15   THE WITNESS: -- and it has, for example, in the

16 File of Interest 2, it shows four law enforcement nodes;

17 correct?

18   THE COURT: Correct.

19   THE WITNESS: Okay, Your Honor, yes. Thank you.

20 I'm just making sure we're talking about the same thing.

21   THE COURT: And then if I'm getting it right in

22 that same file of interest, according to your report where I

23 see 2145 listed in the target summary, what you did was break

24 it down into two separate runs based on time.

25   THE WITNESS: Correct, Your Honor.

1   THE COURT: And that was a decision, I guess, you

2 made knowing how the inclusion and exclusion criteria, for

3 lack of a better term, like -- is that right?

4   THE WITNESS: Correct.

5   THE COURT: So, that was a decision you made.

6 Corporal Mills didn't make that decision when he was running

7 it?

8   THE WITNESS: He didn't make that decision.

9   THE COURT: Okay. If he knew to make that

10 decision, would he have done that by going to the rows of

11 requests and filtering for specific times just based on the

12 two clusters of times?

13   THE WITNESS: Yes.

14   To say that a little differently, but agree with

15 you, he would specifically -- we don't have it on the ELMO,

16 but if you look at Figure 2 in front of you, Your Honor, from

17 my report on page 10, --

18   THE COURT: Yep.

19   THE WITNESS: -- he would click the caret. Maybe

20 there's a better one I can show you. I apologize.

21   If you look at Figure 3 on page 11, he would do

22 what I did, which was click on the date/time caret and then

23 use the filter to narrow down the time range to what he

24 wanted -- or what I wanted, whoever is the user.

25   THE COURT: Now, given that one is a pass and one

1 is a fail, what if you didn't break them down? I mean,

2 there's nothing that says here it would be a pass; right?

3   I mean, I'm just trying to figure out, so for

4 example, for the purposes of probable cause, and for a law

5 enforcement officer attesting that this is, you know,

6 sufficient?

7   THE WITNESS: What do you do with the fact, Your

8 Honor, if one is a pass and one is a fail?

9   THE COURT: Yes.

10   THE WITNESS: So, again, I'll give you a straight

11 answer and then try to draw an analogy, which is dangerous.

12   But the straight answer is one of them is a pass.

13 That's sufficient, Your Honor. End of story.

14   If he also ran something and found a fail, it does

15 not mean that the person was not the downloader; it means

16 that the test decided it was not enough information to decide

17 they were the downloader. They might be the relayer. Or it

18 might be not enough information.

19   Whereas, a pass, which I think this is really

20 essential to understand, if you don't mind my saying, a pass

21 indicates there is enough evidence to show they are the

22 downloader.

23   May I give a terrible analogy?

24   THE COURT: Sure.

25   THE WITNESS: My terrible analogy is -- and I say

1 it's terrible because I'm not law enforcement, and I'm

2 probably getting some facts wrong about how law enforcement

3 works.

4   If I'm law enforcement and I'm driving my car and I

5 pull to the side of the road and I'm at a red light, it's a

6 really long red light because there's traffic up ahead, and I

7 look to the right and I notice -- and again, this is where I

8 probably don't understand the law -- I notice a couple, maybe

9 12 people going into a house and coming back out again and

10 I'm at the red light -- again, not law enforcement, but I'm

11 saying, Wow. People going in and out of the house. I wonder

12 if that's related to some illegal activity because people

13 don't often do that. But it's only 12 people, and I'm at a

14 red light, and that's about all I saw, so I'm going to keep

15 going.

16   Now, it just so happens in that same circumstance,

17 a different law enforcement officer is on their lunch break,

18 and it's a really long lunch break and they are sitting there

19 watching. They see enormous people coming, going in and out.

20 It's the same scenario.

21   In the first case, the law enforcement officer --

22 and, again, just an analogy -- did not have enough

23 information to say that anything wrong was happening and they

24 go about their day.

25   But in the second case, the same situation, someone

1 who is there longer saw more observations and they

2 concluded -- actually, you know, again, analogy -- I think

3 there might be something going on here, because that's

4 sufficient information for me to act on.

5   So, I think just seeing the 12, it might mean that

6 it's just they're having a potluck and they were coming to

7 get a bag of sugar. I don't know that. But it could mean

8 they got limited observations.

9   THE COURT: And so from a mathematical perspective,

10 the latter is the more sound one; right? The one with the

11 longer observations of more people?

12   THE WITNESS: It's easier. You have more data.

13 It's easier to make an observation.

14   Just because you're observing longer doesn't mean

15 it's a pass. You may observe someone for four days and get

16 20 requests from them and the formula will say, I'm sorry.

17 Given the number of neighbors they have, that's not enough

18 requests.

19   There's many factors that go -- we haven't talked

20 about it today, but in previous testimony, I've talked about

21 the size of the file is an important factor, the number of

22 neighbors they have is an important factor.

23   So, time is just one element. And it could be four

24 days you get 25 requests, but given that they have 120

25 neighbors and the size of this file, they're a relayer. And

1 we haven't touched upon that today.

2   THE COURT: But you raise a good point, which is

3 that they -- the facts which are relevant to the

4 mathematician and the scientist may not be the same facts as

5 law enforcement. They might be, but they might not be?

6   THE WITNESS: That's correct. Yeah.

7   THE COURT: So I think I understand why from your

8 perspective once you get a pass, it's enough to say that's

9 the relayer.

10   THE WITNESS: Right. But not --

11   THE COURT: But not necessarily. The fail isn't

12 the opposite of it?

13   THE WITNESS: A fail is not the opposite, Your

14 Honor. That's correct.

15   THE COURT: Okay.

16   THE WITNESS: And it could -- to make my analogy

17 worse, maybe what you're looking at is people going into a

18 large apartment building. Well, 12 people going into an

19 apartment building in and out again is normal for a large

20 apartment building.

21   So, that's kind of the analogy for the size of the

22 file, the number of neighbors. You have to bring all the

23 factors together, and then you run the mathematical formula

24 and you get a result.

25   THE COURT: Okay. Thank you.

1   THE WITNESS: Thank you, Your Honor.

2   MR. MORGAN: May I Redirect briefly?

3   THE COURT: Sure.

4   FURTHER REDIRECT EXAMINATION

5 BY MR. MORGAN:

6 Q.   I want to drill down on what "fail" means. It's

7 critical here.

8   So, you just testified about fail. Does fail mean

9 that that IP address is not the original requester?

10 A.   It can mean that they're not. It can mean that they are

11 the original requester, but it's not a high confidence result

12 for the formula.

13   For example -- and I think I stated this before.

14 If the formula comes back with .97, it doesn't meet our

15 threshold for declaring a pass on the spreadsheet. That's

16 the same threshold that we declared in the paper.

17 Q.   So, you chose in your paper for your formula to have a

18 98 percent confidence?

19 A.   Confidence threshold.

20 Q.   Confidence threshold. Thank you.

21   And so if a fail -- if something has a 97 percent

22 confidence threshold that that IP address is the original

23 requester, it will still say fail?

24 A.   It will still say fail. And it might be a false

25 negative is what we would say.

1 Q.   So, because fail is not -- it's one word in the

2 spreadsheet. Is there a different term that would be better

3 than fail?

4 A.   Not pass might be a better one.

5 Q.   What about a situation where you have data that's

6 outside the criteria that comes in there. Would there be a

7 better word to put in?

8 A.   Maybe not pass or just not display anything.

9 Q.   You mean, just don't run it; don't display it?

10 A.   Yeah.

11   THE COURT: Can we tell just how badly a fail was a

12 fail in your analysis here? I mean, I'm looking at one of

13 them.

14   And it says the statistical test fails as the value

15 of EQ1 is approximately .000001, which is less than .98.

16   THE WITNESS: Yes. So, again, short answer to your

17 question.

18   THE COURT: A really bad fail.

19   THE WITNESS: You can absolutely look at those

20 actual numbers and you could present them -- you could

21 present them to law enforcement.

22   But we just thought it was better to present a

23 single word, right? You don't want them drawing conclusions

24 from that about a binomial hypothesis.

25   THE COURT: I was just pressing on this notion that

1   I certainly can't draw an inference that a fail means it's

2   .97. I can't draw that inference. If all I know is it

3   failed, I can't say it's .00001 unless you tell me it is.

4   THE WITNESS: True.

5   THE COURT: And I can't say it's .97. I don't

6   know. It's fail.

7   THE WITNESS: You don't know.

8   Me, myself, as the author of this, I'm saying with

9   my coauthors -- we sat down and designed this. We said, this

10 works better with a threshold. So, we enforce that in the

11 spreadsheet.

12   THE COURT: Right. I get that. Okay. Very good.

13 Thank you.

14 BY MR. MORGAN:

15 Q.   And, Doctor, in this case, with these three particular

16 files that the affiant relied on, the correct result was a

17 pass; right?

18 A.   Correct.

19 Q.   Not a fail?

20 A.   Correct. Because as I showed, there's one or more --

21 there's two runs in File of Interest 2 that are a pass.

22 There's one run in File of Interest 3 that's a pass. And as

23 we've discussed, there's no filtering required for file of

24 Interest 1, and it's correctly done.

25 Q.   So, there is no fail in this case?

1 A.   There's no fail.

2   THE COURT: Mr. Morgan, I got to ask it, though,

3 because I got to get the answer. It's like an itch I have to

4 scratch. What if the law enforcement officer had picked and

5 filtered for 2161, your Run Number 6, and got a fail. It

6 would be a fail; right? I mean, it would be if he chose, for

7 example, that file.

8   THE WITNESS: Correct.

9   THE COURT: That run as well as Run Number 4.

10   THE WITNESS: And got two fails. Is that what

11 you're referring to?

12   THE COURT: Correct. They're fails.

13   THE WITNESS: And that's it? Two fails and no

14 passes? Or just two fails?

15   THE COURT: If, for whatever reason, he chose to

16 filter for those two law enforcement nodes.

17   THE WITNESS: Yeah. He or she would get two fails.

18 And then he could not have -- he could not go forward with

19 the investigation.

20   THE COURT: I guess that's my point is at some

21 point it came down to how this particular officer chose to

22 define the parameters that resulted in pass versus fail.

23   It's just pushing back on this notion that it's

24 metaphysically a pass because your own report shows if it

25 were sliced a different way, the inquiry would have been a

1 fail.

2   THE WITNESS: Well, so, Your Honor, I was answering

3 the question specifically. I would say we're -- both things

4 are true.

5   I would say that yes, you're right. You can narrow

6 this down to just the fails and go about your day.

7   But what Corporal Mills did in this case was not

8 filter at all. And in the specific case when you're not

9 going to filter at all, if there's a pass in there, then

10 you'll retain the pass.

11   So, it's true that if you could do what you said,

12 but what my understanding, Your Honor, is what happened

13 here -- and he testified to -- is he did not filter. So, in

14 that case, a pass remains a pass.

15 BY MR. MORGAN:

16 Q.   So, if you have a set of, let's say, 100 data points and

17 there's a pass in there with just 10, and you have all this

18 extraneous information, 90 other extraneous information that

19 in and of itself you could slice and dice it, it might fail

20 and it might pass; right?

21   But does that mean that that file of interest

22 fails? If you excise out the -- I'm sorry -- if that pass is

23 still in there.

24   Does that make sense?

25 A.   Yes. So, I think you're saying what I just said. If

1 you don't filter all and there's a pass in there, the correct

2 result is a pass for that.

3   This file of interest -- let me say it more

4 carefully. The file of interest that you're examining --

5 sorry. Let me start again.

6   The manifest that was requested for this IP -- this

7 IP address was, according to the statistical test, this node

8 was the original downloader.

9 Q.   And if you slice and dice -- so you're just focusing on

10 the extraneous data.

11   Would it be accurate to use other terms? Not fail.

12 Use one of the other terms you were talking about?

13 A.   Yeah. For example, if they didn't meet the criteria,

14 then perhaps the test shouldn't be run. Perhaps there isn't

15 enough data to run the test and it's a fail. Perhaps it's an

16 actual fail. There's enough data and it just failed.

17 Q.   Okay. Thank you.

18   THE COURT: Anything else?

19   MR. ROBBINS: I think we're done, Your Honor.

20   THE COURT: No. Okay. All right. Thank you,

21 Doctor. Appreciate your third time back.

22   THE WITNESS: Thank you, Your Honor. Thank you for

23 having me in your courtroom so many times. And I still have

24 the exhibit.

25   THE COURT: Okay. Government? Anybody else?

1   Anything else?

2   MR. MORGAN: Your Honor, that's it for the

3   Government. The Government rests.

4   THE COURT: Defense?

5   MR. FINCI: May we have a few moments, Your Honor.

6   Moments, not minutes.

7   THE COURT: No problem.

8   (Pause.)

9   MR. ROBBINS: Your Honor, unless the Court really

10 wants it, we don't see the need to call Mr. Miglianti.

11   THE COURT: No. I don't see the need for it,

12 either.

13   Thank you, sir, for coming. I do appreciate it.

14   MR. MIGLIANTI: Thank you, Your Honor. Have a good

15 day.

16   THE COURT: So, we've taken the evidence. Why

17 don't I hear from you all and then I'm going to have to chew

18 on it.

19   Frankly, I think I understand your respective

20 positions. This is, to me, where I'm struggling is that

21 there is a difference between the responsibilities of law

22 enforcement and math.

23   And I just -- I need to hear from you all. This is

24 a case -- it's sort of -- it's a snowflake, really. It's not

25 *Herring*. And it's not a traditional Franks' analysis. I'm

1 seeing it kind of sort of in the middle.

2   I mean, on the one hand, if I look at the

3 individual runs that Dr. Levine did based on the math, I

4 can't -- I have no basis to contest that they were passes.

5   But I also have a law enforcement officer that says

6 based on his training -- and he can't tell me why he needs

7 three. And all depending on how he ran it, he could have

8 only gotten one or none or two, you know. It is very vexing

9 to figure out how to make this all come together.

10   So, that's where I'm struggling.

11   I think, Mr. Morgan, I think you're right under

12 *Herring*. The big difference between *Herring* and this one, if

13 I credit the Government's facts, is that the flawed system

14 didn't produce an inaccurate result, if I look at it the way

15 the Government is looking at it.

16   On the other hand, perhaps it did, right, if I look

17 at the two fails that are part of Dr. Levine's analysis.

18   So, it just -- I need some guidance from you all as

19 to how you'd like me to frame this issue, and how you think

20 the facts cut in your respective corners.

21   So, who wants to go first?

22   MR. MORGAN: It doesn't matter, Your Honor. I'm

23 happy to go.

24   I would like to just start off by addressing a few

25 of the things, the concerns just directly head-on.

1   Trooper Mills did get a pass on each one. On all

2 three files. Without filtering. He just made a mistake. He

3 didn't filter when he should have. And we wouldn't probably

4 even be here had he just filtered it as far as that is

5 concerned, right, because he would have used the tool

6 properly.

7   The defense says, well, that functionality should

8 be built in. Or whatever. But that's just a decision.

9 That's not *Franks* and that's not *Herring*. That's just a

10 decision they made about how to structure their tool. So,

11 that doesn't get there at all.

12   But then when you have Dr. Levine, who ran it

13 himself the correct way, the way you're supposed to run it to

14 be in compliance with his paper, and he got pass, pass, pass.

15   THE COURT: Here's the gap, I think. Let me try to

16 articulate it as best I can.

17   So, the question as to what an affiant puts in the

18 affidavit in support of probable cause is that it's more

19 probable than not, that the situs of the search will have --

20 will be a location of incriminating evidence. And there

21 doesn't seem to be a dispute that the files of interest are

22 child pornography.

23   MR. MORGAN: Yes.

24   THE COURT: And there doesn't seem to be a dispute

25 that the IP address is linked to the residence from

1   Mr. Pobre.

2   MR. MORGAN: Correct.

3   THE COURT: Where the case lives is why three?

4   Three because an IP addressee could have inadvertently made

5   the request, could have -- in other words, it wasn't

6   intentional. That's what I thought Trooper Mills was getting

7   at.

8   In fact, you know, in the child pornography

9   statute, there's an affirmative defense based on that

10 principle, right, that you can defend against a charge by

11 showing that there were fewer than three images.

12   And I just don't think Trooper Mills frankly could

13 articulate that, but that's sort of where he's coming from is

14 that the reason why three matters is to avoid, in this

15 situation where the algorithm is supposed to tell me if a

16 file of interest, if it's more probable than not that this

17 IP address --

18   MR. MORGAN: Right. So, I think that I can address

19 that head-on, Your Honor.

20   First of all, I think I said when I started, I

21 think we do have three files of interest here. I think he's

22 in compliance with it, and that they pass. He had it pass,

23 and Dr. Levine said they're supposed to pass. I think

24 they're good. We have three, anyway.

25   But why three doesn't matter, obviously doesn't

1 matter for scientific purposes.

2   THE COURT: Math, right. Got it.

3   MR. MORGAN: It's 98 percent, 99 percent, super

4 high. Way above probable cause.

5   But in a situation where -- let's imagine that you

6 are an officer and you walk by a house and you just see

7 someone standing there holding one picture that you know, via

8 math, that is about 99 percent accuracy that is child

9 pornography. That officer could go to the -- to a magistrate

10 judge and get a warrant out for that because he could say, "I

11 have 99 percentage accuracy. I know what child pornography

12 is. I know the definition in the State of Maryland. I saw

13 that. And that's 99 percent scientific accuracy I can tell

14 you that that's it."

15   And there's always a defense that I accidentally --

16 I didn't know I was holding it, right. That's something that

17 nobody can cure, right. But it doesn't defeat probable

18 cause. He might have a defense later on down the road that

19 he's actually blind. He didn't know he was holding it.

20   THE COURT: Right. But give me one real life

21 example of one search warrant that you executed based on one

22 request from one IP address.

23   MR. MORGAN: It wouldn't do it, Your Honor.

24   THE COURT: Right.

25   MR. MORGAN: Because they're not going to target

1 just a single person. Doesn't mean that that person's not a

2 requester. Doesn't mean that that person didn't request the

3 file. It doesn't mean that that didn't happen. It just

4 means that they want to target purveyors of it. They want to

5 target the more prolific people. They want to make --

6   THE COURT: So is three enough to be a purveyor?

7   MR. MORGAN: It's not a one-off, right?

8   THE COURT: Right. But that makes my point, is at

9 some point practically you make the decision --

10   MR. MORGAN: Absolutely. Right. But that's not

11 probable cause. That's practicality. What's a good law

12 enforcement strategy? Do we want to target somebody who just

13 has one file? Or do we want to target somebody who is --

14   THE COURT: What about the affirmative defense in

15 the possession? I mean, doesn't that make the point that

16 there is this world that law enforcement recognizes of

17 accidental receipt, accidental transmission, accidental

18 possession; right? And for this federal law, it's three.

19   MR. MORGAN: So, it would be in this case that the

20 chance of that accident happening is less than 1 percent,

21 which is way more than probable cause because of the math;

22 right?

23   THE COURT: Well, no. No. The math shows that for

24 a single request, it's .98 confidence that the IP address is

25 the requester.

1   MR. MORGAN: The requester for each one. For each

2 file.

3   THE COURT: I'm just talking about one. I just

4 want to stay with one for a second. The law enforcement --

5 the gap between the math and law enforcement is what

6 inference you can draw from that.

7   MR. MORGAN: Right. Right.

8   THE COURT: Math is saying it's math. There is no

9 inference to be drawn. It's black or white. It is or it's

10 not.

11   And the law enforcement officer, while he can't

12 really articulate it, what I think he's saying is, you can't

13 draw the inference that it's a knowing -- a possession that

14 gives rise to probable cause. At least he's been trained,

15 and we still don't know what was said.

16   But it's just remarkable to me that --

17   MR. MORGAN: Again, with the preface: We do have

18 three files, --

19   THE COURT: Assume I disagree with you for whatever

20 reason.

21   MR. MORGAN: -- then I think there's a difference

22 in the inference you can draw on just a regular scenario

23 search warrant versus the inference you can draw when you

24 know you have a 99 percent accuracy rate. You can have

25 higher confidence in it; right?

1   And so I do think that you could have probable

2 cause based on one file alone. If you know with 99 percent

3 accuracy that that IP address in that house right there is

4 the original requester of child pornography, it may not be

5 prudent to do it for law enforcement because it might be a

6 waste of resources.

7   THE COURT: But certainly this law enforcement

8 officer didn't know it. He put all kinds of erroneous

9 information based on his erroneous use of this spreadsheet,

10 which then populated the police report and the search

11 warrant. It was wrong.

12   It just wasn't -- in other words, like I'm reading

13 this, what appears to be the stuff that was taken out would

14 have been kind of the math explanation for probable cause.

15 That's how I'm reading it.

16   MR. MORGAN: I'm not sure. We would have to get

17 additional testimony about what that exactly means there,

18 Your Honor.

19   THE COURT: We couldn't get it from the officer who

20 wrote the report because he doesn't know anything.

21   MR. MORGAN: But at the end of the day, it was not

22 in there, right?

23   THE COURT: I understand that. But this is part of

24 what was not told to the judge, because if it was told to the

25 judge, at least if it was this judge, I'd be asking lots of

1   questions about: How can you say you observed anything when

2   you then tell me that the Free note report -- the Freenet

3   note reported this? And then you give me all this math as to

4   why essentially it's probable cause. It amounts to probable

5   cause.

6   So, I guess my point is: You've demonstrated --

7   I'll credit for a moment. You've demonstrated that there

8   were at least three files of interest that this IP address

9   requested.

10   MR. MORGAN: Yes.

11   THE COURT: But that is not what this law

12 enforcement officer, at least the way he got there, is not --

13 it's just not accurate.

14   Like, he put if there, right, that he observed 29

15 unique block requests or 132 unique block requests, and then

16 did this aggregate analysis. And we've learned that he

17 shouldn't have done that.

18   MR. MORGAN: He should have filtered. So, what he

19 did was he included extra information; additional information

20 in the affidavit. He could have just narrowed it down if he

21 had filtered it, it would have been more -- it would have

22 been -- not excluded the extraneous information. But the

23 pass is still there. And it is what he observed. He

24 observed what he saw on ICACCOPS. He moved it over all the

25 things we talked about, and moved it into the spreadsheet

1 tool.

2   And what makes its way into the affidavit is a

3 reflection of the entirety because he didn't filter it.

4   So, it's overinclusive, if anything, right, of

5 additional data, including the passing data, the stuff that

6 proves with 98 percent that it passes.

7   So, if you take the additional -- if that comes

8 out, then you just have a more precise version of how it's

9 accurate and how it's a pass.

10   And so I don't think the inclusion of extraneous

11 data that's not necessary for the pass in these three files

12 is at all -- like, it doesn't reduce probable cause at all or

13 the quantity approved to get to it.

14   THE COURT: It's a very problematic system, though.

15 It's an extremely -- you have an officer who's testified that

16 he's done this in every case. Every case. He doesn't know

17 how to work the spreadsheet. He doesn't know anything about

18 any terminology. And he's out there pumping out warrants.

19   Not telling the judge it's an algorithm and a

20 software that even your own expert says you got to use it

21 right or it's garbage. Garbage in, garbage out.

22   If we were at the *Herring* point where this is about

23 deterrence, you know, you have a very steep hill to climb

24 here.

25   MR. MORGAN: Right. So, I think two things on that

1 that are critical. Let's say that it could be all true.

2 That's not *Franks*. That's just a training mistake. They

3 need to do a better job of training.

4   THE COURT: That's a *Herring* problem.

5   MR. MORGAN: So, we could set aside the fact that

6 he -- he's not making a false statement. He's doing what he

7 thinks he's supposed to be doing, right. He didn't filter

8 when he was supposed to. So it's not the *Franks* stuff.

9   But on the *Herring* side of it, first of all, we

10 have the major, major distinction that, just as a nonstarter,

11 that *Herring* involves something producing actual errors as

12 opposed to just being misuse and can allow for mistakes to be

13 made like this. I would have been better of course if the

14 spreadsheet would automatically do the filtering for them,

15 rather than showing them all the data, but then we'd run into

16 a separate problem where you could argue, Well, you didn't

17 get to see all the data, did you? And at least here they get

18 to see all the data. They can filter for themselves.

19   THE COURT: I guess from a systematic point of

20 view, though, in *Herring*, everybody stipulated that the

21 database wasn't working.

22   MR. MORGAN: Right. Right.

23   THE COURT: Now there's a fight about whether the

24 database works.

25   MR. MORGAN: There's also an agreement that the

1   wrong person got arrested because of that.

2   THE COURT: Yeah.

3   MR. MORGAN: That would be akin here if this

4   spreadsheet tool had resulted in a false positive. It was

5   not the original requester. That IP address was not the

6   original requester. That would be different.

7   THE COURT: It is if you look at 2161 and --

8   MR. MORGAN: But that, again, is if you are

9   excising the extraneous data, and that still retains a pass,

10   remember.

11   If you can analyze --

12   THE COURT: Listen, the law enforcement officer

13   we're told today should have known how to filter things;

14   right?

15   MR. MORGAN: Right.

16   THE COURT: We're not told what he was told to do.

17   We're not told how he should have been taught. But what we

18   do know from the expert report is had he filtered in a

19   certain way, he would have gotten fails.

20   So I understand what you're saying that the

21   unfiltered -- the driver was the pass.

22   MR. MORGAN: Right.

23   THE COURT: But I have to assume that proper

24   training would have told him to filter.

25   MR. MORGAN: Right.

1   THE COURT: And then I have to further assume that

2   that proper training would have not resulted in him getting

3   two fails and saying, All right, well, I'm stopping right

4   there. Because you heard him say "I only look at three."

5   What if the first two he picked was -- in other

6   words, this feels like this is coming down to a game of

7   chance versus good police work.

8   MR. MORGAN: Again, we're not in the *Franks* realm.

9   In the *Herring* realm, I would say that -- a couple things.

10   First, as you heard, it's an evolving spreadsheet.

11 And so to what it's worth, there are things that can be

12 addressed and improved, like every single software program in

13 the whole world can always be improved, I'm sure. It has

14 been since 2018.

15   THE COURT: Yeah, but this is about 2018. So I

16 really don't care what happens.

17   MR. MORGAN: It's important because in *Herring* --

18 sort of talk about the replicability of it. Like, it will

19 happen over and over again. Because to exclude something --

20   THE COURT: In my finding of fact world, if we get

21 to that, Government, you're done, because this officer said I

22 used it in every single one. I did it the same way. He did

23 it. He just pumped these out based on his misuse of -- and

24 so that I believe that his testimony was he was the guy. He

25 was the one at the MSP who had one computer that he ran all

1 of the peer-to-peer software and did all of this filtering.

2   So if we get to that point about like deterrence

3 and systematic error, I think where you have me really

4 struggling is: It's not the same error as in *Herring* because

5 we have data that shows this particular IP address was the

6 original requester, so...

7   MR. MORGAN: They all pass. And I need to bring it

8 back to the fact that fail -- let's say he should have gotten

9 a fail if he had done it. If he had sliced and diced it and

10 we should have gotten a fail and the spreadsheet doesn't

11 prevent that. That does not mean that --

12   THE COURT: It does here. The defense's own

13 report -- the Government's own report says for fail FOI LE

14 Node 2145.

15   Tell me -- I think I asked this. The statistical

16 test fails as the value of EQ1 is approximately .000001,

17 which is less than .98.

18   So your hypothetical that you were giving this

19 witness about if it's .97, it's still a fail, that doesn't

20 apply to this actual run. This is a fail -- like a colossal

21 fail. Do you see what I'm saying?

22   Look at his report on page 10, Run 4. Because, you

23 know, the math -- he does the math for us. Like a pass for

24 Run 3 is a strong pass. But a pass for Run 4 is a strong

25 fail. That's the problem -- one of the problems I was having

1   with it.

2   So yes. In the abstract you're right. There could

3   be a fail that's a .97, but we don't have that here. We have

4   two fails that are like actual, the other is a .0, which is

5   less than .98.

6   MR. MORGAN: I want to take a step back on that

7   because --

8   THE COURT: Yeah.

9   MR. MORGAN: -- what we're talking about here is

10 the failure of this spreadsheet tool to filter. Because had

11 it done it automatically, which would have been nice, then

12 you don't have a problem; right? Because you don't have

13 these issues, okay.

14   And so -- so they didn't have that automatic

15 filtering in there. Instead, they instructed the user to do

16 it. And he didn't do it. I wish he would have. Because had

17 he done it, we wouldn't be here. And that's it, right.

18   And so the fact that it doesn't automatically

19 filter, and because of that if you excise some of this, you

20 can generate a fail like the defense expert did, I mean, we

21 agreed. If you put in a whole bunch of stuff and you never

22 filter anything out, you can get -- in a hypothetical

23 dataset, --

24   THE COURT: Right.

25   MR. MORGAN: -- including a fail. And that fail

1 might mean 97 percent. Or it might mean .01 or any area in

2 between.

3   But in the real world, real case we have here,

4 there is a pass in that. It's not a hypothetical set of

5 data, right. And so it would be great had he filtered, but

6 that mistake here did not produce an error in the results,

7 right. It didn't produce a pass when it should have said

8 fail. Because that dataset always had the pass.

9   THE COURT: Then let me ask you: Why did you have

10 your expert run them each individually? Why didn't you just

11 have him explain what you just said?

12   In other words, you know, you went to the trouble

13 of doing each individual run.

14   MR. MORGAN: I think he's being thorough, Your

15 Honor, and I appreciate that.

16   THE COURT: Well, if the officer did, we might not

17 be here. That's the problem I'm having. Had he done it a

18 different way, just manipulated the data a different way, he

19 might have come up with a different conclusion. That's

20 different than math, you know. I'm not here to necessarily

21 try to go toe-to-toe with him in this area.

22   MR. MORGAN: Given those three datasets, it's

23 impossible to come up with an actual real -- like the fail in

24 the sense of like he's not the right requester, right.

25 Because he has a pass on that data. We can agree on that;

1   right? There is three data that has a pass --

2   THE COURT: No, I don't think we can. Because if I

3   look at Law Enforcement Node 2161, and I look at Run 4 and I

4   imagine a world -- or 2145, Run 4, and I imagine a world in

5   which all the officer looked at was the 30 hours and 27

6   minutes that was part of that run, because he picked that

7   run, for whatever reason.

8   See, I haven't been given any real criteria as to

9   how this officer was instructed, right. If he picks that

10   one, he runs it, it's a fail. And it's a colossal fail

11   according to the due diligence your expert did. Right?

12   MR. MORGAN: That's excluding the pass data.

13   That's like saying I'm going to ignore that. It doesn't have

14   a pass in there. It's like filtering the wrong way.

15   THE COURT: What do you mean filtering it the wrong

16   way? I don't have any evidence as to how he's supposed to

17   filter or not filter.

18   So, in other words, if he chose Law Enforcement

19   Node 2145 and isolated this data the way your expert did,

20   then it would be a fail. And I haven't been told that's

21   wrong to do it that way.

22   MR. MORGAN: The five criteria that he went

23   through, each single one, he showed you the columns how he

24   filtered. You want consistent HTLs. You want each one of

25   those. If you had this criteria, that's how you're supposed

1 to filter it to.

2   THE COURT: But I asked Dr. Levine, I said show me.

3 Isn't it -- this is in response to the question I had. Can't

4 you just, by filtering, you sort of filter out all the error,

5 right, so you're guaranteed a pass? And he said no. Because

6 look, I'm filtering properly and I got fails; right?

7   So that -- if I take the law enforcement officer

8 and put him in the same shoes and say, Okay, you can -- if

9 you filtered it correctly, you, too, would have gotten fails.

10   MR. MORGAN: If he had got a fail in this, it would

11 have been wrong.

12   THE COURT: What do you mean?

13   MR. MORGAN: It would have been a false fail.

14 Because the file of interest has a whole bunch of data in it.

15 Let's say it's got 100 blocks, okay.

16   THE COURT: Right.

17   MR. MORGAN: And if you filter out the pass, then

18 you're going to be left with the fail. That's not what

19 you're supposed to do. If you filter, you're going to be

20 filtering on the criteria that he has.

21   THE COURT: But that's what Dr. Levine did. So, he

22 did each run individually based on each law enforcement node.

23 And he actually broke up 2145 into two separate because of

24 the time gap. Right?

25   And so if I credit your expert as doing it right,

1 which I do, then it begs the question: If the officer did it

2 right, he would have had two fails. And this all just comes

3 down to the serendipity of what he picked as -- that he

4 picked an aggregate. And I get that. But I don't know if

5 it's going to get you to the finish line because this is a

6 problem.

7   MR. MORGAN: So I'll deliver -- make a bad

8 metaphor, too. An analogy, too.

9   Let's say you have a pizza. It's a cheese pizza.

10 And the question is: Is there pepperoni on this cheese pizza

11 or not? And you've got six slices. One of the slices -- one

12 of the little triangles is a piece of pepperoni there.

13 There's no pepperoni on any of the others. The question for

14 you is: Does this pizza have a pepperoni in it? If so, say

15 Pass. If it does not have a pepperoni, say Fail.

16   And ideally the third term would be if you're

17 putting gobbledygook, then say, Don't do that, right. So

18 you're looking at it. Does the pizza have pepperoni? And

19 what I'm saying, Your Honor, is that no matter what, that

20 pizza always has that pepperoni because it's going to be

21 there.

22   What I'm saying is: Yes, you just decide yes, I

23 want to look at the stuff -- that slices that don't have a

24 pepperoni on there that don't met that criteria, then you're

25 not going to see the pepperoni. But if you filter it

1 appropriately like you're supposed to do, by the criteria

2 it's going to focus you on --

3   THE COURT: So, are you saying that your expert did

4 not filter properly? He looked at the wrong slice of pizza

5 and it's wrong?

6   MR. MORGAN: No, no. He's showing how you would

7 get a fail, right. That's right. If you're looking at

8 just -- if you're going to only analyze just extraneous,

9 random data, --

10   THE COURT: This is not extraneous, random data.

11 This is the request that was made from this IP address to Law

12 Enforcement Node 2161 and 2145.

13   MR. MORGAN: I mean, extraneous as in not within

14 the five criteria or six criteria; it's outside of the bounds

15 of that.

16   THE COURT: No, because I think Dr. Levine said

17 it's within the bound -- well, it's within the bounds. And

18 you have to know how you filter so that you get a good

19 result.

20   But that was exactly the question I asked him,

21 which is: Okay. So, you filter out all the error. And he

22 said, No, you don't filter out all the error, because, look,

23 it works because in these two instances I got a fail.

24   MR. MORGAN: But the criteria is filtering to make

25 sure you don't get that error. It's the opposite. It's a

1   conservative approach. You're trying to get up to

2   98 percent.

3   THE COURT: Right.

4   MR. MORGAN: That's why it's so important. It's

5   the flip of that. They're not excluding stuff that would

6   otherwise make something that would fail pass. They're

7   trying to be ultraconservative.

8   THE COURT: You understand that at this point, too,

9   right, we're counting angels on the head of a pin. We're not

10 talking about a police officer's actual observations, which

11 is traditional probable cause analysis; right?

12   MR. MORGAN: Exactly.

13   THE COURT: And then we're funneling all the way

14 back to this algorithm that we now know is sound, but seems

15 not properly used. And then we have an officer who's

16 fronting it to the judge as if it is properly used; is in

17 fact not even telling the judge it's an algorithm.

18   MR. MORGAN: Yes. On that we can come back down to

19 earth. We could orient back to what the ultimate task is.

20 Is it *Franks* or specific error? So, on that point, yes, he

21 didn't use it properly, that's correct. He made a mistake.

22 He should have filtered.

23   Making a mistake, not -- he didn't know. That's

24 not *Franks*.

25   THE COURT: Is it reckless? I mean, because it can

1   be a reckless disregard. He doesn't have -- he doesn't

2   strike me as a guy with a whole lot of animosity. He's not

3   here doing this on purpose.

4   But, boy, are they reckless. So, you don't know

5   what the thing is that your supervisor -- that comes from the

6   algorithm, and you don't know what it means. But because you

7   were told to take it out because it would confuse the judge,

8   you just do it?

9   MR. MORGAN: Well, I mean, we don't have

10   testimony -- I want to put a pin on there for a second. We

11   don't have testimony precisely what that bit means. So, I

12   wouldn't know what Dr. Levine would say that if that's a

13   helpful sentence in there or not helpful sentence in there.

14   So, it could cut both ways. Maybe the

15   interpretation of it would be --

16   THE COURT: If this were in, I would know that

17   there is a program that's running behind this. It's not him

18   observing anything, because it would be called a Freenet node

19   that reported an average of 69.1 peers to reconstruct the

20   file, and then it gives the numbers. These 29 blocks

21   represent 97 percent of the even or expected share of the

22   minimum blocks required.

23   So I would know, at a minimum, I needed to ask more

24   questions about what this all means in terms of a program.

25   MR. MORGAN: So, I think I have something that's

 1   directly on point.

 2   THE COURT: Okay. Great.

 3   MR. MORGAN: About being reckless in that question

 4   that you had.

 5   THE COURT: Yeah.

 6   MR. MORGAN: From *Miller v Prince George's County*,

 7   475 F.3d 621. Reckless disregard in the *Franks* context

 8   requires a showing that the affiant personally recognized the

 9   risk of making the affidavit misleading.

10   And then in *Pulley*, *United States v Pulley*, 987

11   F.3d 370, what the officer affiant should have known does not

12   matter if he did not, in fact, know it.

13   THE COURT: Didn't he just testify, though, that he

14   personally would have wanted to keep it in?

15   MR. MORGAN: The recklessness about him -- about

16   the filtering, Your Honor. Like, that part.

17   THE COURT: Ah, okay.

18   MR. MORGAN: And so telling the judge about the

19   filter and all that.

20   The mistake he actually made, right, in this case,

21   the not filtering.

22   And so reckless disregard is a subjective inquiry.

23   It's not negligence or even gross negligence.

24   THE COURT: How about the more fundamental part

25   about not telling the judge at all that there was an

1 algorithm that was the probable cause? Explaining that this
2 was a system that was coming to the conclusions that he took;
3 that he represented to the judge to be his own. And then
4 today we learn that there was actually more information that
5 he personally would have put in, but his supervisor told him
6 not to, that really would have given more context to the
7 judge on that.

8   MR. MORGAN: Let me go through what this judge
9 knew. The judge knew all the background information --
10 several pages. And he also knew about -- like you said
11 about, yes, the Freenet stuff, too. And then the judge knows
12 that law enforcement has collected the manifests to suspected
13 child pornography files that are publicly shared and created
14 a database of the associated keys; two of the blocks of a
15 file.

16   So, he knows law enforcement has done that.
17 They've got it. Law enforcement collected it. Law
18 enforcement Freenet nodes record requests that are sent to
19 them, and they are compared against these known keys to
20 identify child pornography files being downloaded. That's
21 exactly what happened here. So, he knows that there's a law
22 enforcement program that has nodes that's collecting this
23 data.

24   Then he also knows that that original requester can
25 be determined with a fair probability because the number of

1 requests received is reduced significantly as each node

2 forwards them.

3   Using the number of requests received, the number

4 of peers a requester has, and the number of blocks the file

5 contains, we can calculate -- talking with the formula -- we

6 can calculate if the volume of requests -- sorry -- if the

7 volume of requests received is significantly more likely than

8 not from the original requester.

9   THE COURT: Okay.

10   MR. MORGAN: So, I mean, that's a lot right there.

11 That he knows about the law enforcement program. He knows

12 that there's a calculation going on.

13   And then further down it talks about how --

14   THE COURT: Fair enough.

15   MR. MORGAN: -- he's received the data and is

16 reviewing it. While he was reviewing that data, he says what

17 he saw. He saw that that IP address was requesting blocks.

18 He saw the blocks, 135 of them. He might not have understood

19 the, apparently, the import of all the data he was seeing

20 exactly, but that's not *Franks*.

21   That's totally true. He did observe that data.

22 That it was requesting blocks of what he suspected as child

23 pornography because he clicked on the file, he actually

24 downloaded the file, and he reviewed it to say that he

25 suspects it's child pornography.

1   THE COURT: Yeah.

2   MR. MORGAN: So, not only that, some of this stuff

3 is happening on the very day in which he's doing the

4 investigation. The judge knows all that now, too. Right?

5 And so there's nothing incorrect about saying that, right.

6   It is true that observed -- what he observed there,

7 including the extra data, but the additional stuff, too. So,

8 I don't think that's misleading to the judge. I think that

9 that's an accurate representation of what he did review.

10   And so there could have been other stuff that would

11 have been -- that could have been added, but those

12 omissions -- what I was just reading that case law about --

13 it would have been, I guess, nice, but not necessary, for him

14 to explain some of the other stuff; but there's no indication

15 whatsoever that Corporal Franks -- I'm sorry --

16 Corporal Mills knew under *Franks* that "I know something's

17 going on here with this program. I'm not going to tell the

18 judge about it. I'm going to recklessly -- I'm going to

19 disregard it, and I'm going to omit it from this affidavit."

20 There's no indication whatsoever.

21   THE COURT: There's no indication that he knows

22 anything about how this works, and his supervisor is telling

23 him to keep it out.

24   MR. MORGAN: But what should have known doesn't

25 matter, right. That's what Pulley says.

 1   THE COURT: No. He actually knew that. He knows

 2 what he doesn't know. He can't answer any of the questions.

 3 And he said, "I personally would have kept it in. But my

 4 supervisor said keep it out because it was confusing."

 5   Now, on your larger point I hear, which is that

 6 precatory paragraph, right, basically sets out for the judge

 7 that there's something going on here that's a bit more

 8 sophisticated than --

 9   MR. MORGAN: Sure. And to the precise point

10 about -- that little paragraph or that little two sentences

11 that the supervisor took out -- so we're talking about

12 omissions now. We have to remember that the calculus for

13 Your Honor is to -- if you put the omissions back in --

14   THE COURT: Would it change the analysis?

15   MR. MORGAN: We're saying it would make it much

16 better, which is the exact opposite. It's stronger at that

17 point. So, you can't have a *Franks* situation in which the

18 omitted information is helpful.

19   THE COURT: Right. I get it. I hear you on that.

20 Which is what pops us back to *Herring*. I see where you're

21 going with that. I understand.

22   MR. MORGAN: In fact, a lot of this stuff -- it

23 would have been nice had he put in the 98 percent accuracy

24 rate and all these other things that are just mind-blowingly

25 successful in there, and it would have done nothing but help,

1 right.

2   So, there isn't a false statement that needs to be

3 excised. Those statements he made in there are accurate.

4 And to the extent there's an omission, any omission, like

5 Your Honor just pointed out the precise one, would only help.

6   THE COURT: Well, the omissions actually, for 1,

7 might have helped; but 2 and 3, the numbers are just crazy.

8 You do recognize that; right? Because he did it wrong.

9   Because he did it wrong, if he would have put in

10 that the 132 blocks represented 520 percent of the even or

11 expected share of minimum blocks, I mean --

12   MR. MORGAN: To the extent it was intelligible

13 there.

14   THE COURT: That might have actually hurt; right?

15 Do you see what I'm saying? Because he did it -- it seems

16 like because he did it wrong, that auto-populated

17 narrative --

18   MR. MORGAN: They can excise that part out. Then

19 we're back to having a cleaner -- excise the part out that

20 went in, right. If he had filtered it, only the correct

21 stuff would have gone in. But he did it so all the extra

22 stuff went in, you know what I'm saying? So if you excise

23 that out, then --

24   THE COURT: No. He did it wrong. That's right.

25 And then his supervisor told him to take out the stuff that

1 would have highlighted he did it wrong. See, because on the

2 second part, the File of Interest 2, right?

3   MR. MORGAN: I see. That would have been -- had

4 the judge known all of that, it would have indicated to the

5 judge that this guy didn't filter.

6   THE COURT: Right. Something is wrong. I don't

7 know what it is, but it's wrong. Like "132 blocks represent

8 520 percent of the expected share of minimum blocks required

9 to download the file in 259 percent."

10   Do you see what I'm saying? The numbers just don't

11 make any sense.

12   MR. MORGAN: I'm sure it wasn't designed because

13 they thought he was going to filter.

14   THE COURT: Right.

15   MR. MORGAN: But it's not *Franks*, right. That's

16 just a mistake.

17   THE COURT: Okay.

18   MR. MORGAN: It cannot be the basis that that would

19 invalidate a search warrant, that he had overinclusive

20 information in there that would show that he just didn't

21 filter. He made a mistake. When in reality all --

22   THE COURT: No. Because I think what the defense

23 is going to argue is it wasn't a mistake. It was just a

24 reckless disregard for how this thing even worked. It didn't

25 matter. Anybody could have done it. My 10-year-old could

1 have done it. My 10-year-old could have gone and hit the

2 button and then stuck in whatever the --

3   MR. MORGAN: No, not at all.

4   THE COURT: Well, --

5   MR. MORGAN: Because it takes that whole first

6 part, too.

7   And we also can't forget everything else in this

8 case. You know, all of the going into the MVA, Department of

9 Assessment and Taxation; everything else.

10   THE COURT: But my point is that there's no

11 dispute. I don't hear any dispute from the defense that the

12 IP address is related to the house and no dispute that the

13 files of interest, the manifests -- it's child pornography.

14   It's the stuff in between that is the reckless --

15 the part that we're talking about. And you say it's a

16 mistake.

17   MR. MORGAN: Right. He didn't know he was supposed

18 to filter. He thought it was optional. And you can't have a

19 reckless disregard in *Franks* if you don't know.

20   THE COURT: Unless I make a finding that that just

21 blinks at reality.

22   He says today, "I reviewed my training for today."

23 But when pressed, he reviewed only the part that hurt his

24 testimony, which is the filter. He couldn't tell me anything

25 else about the training. Isn't that a little problematic?

1   MR. MORGAN: I think he wanted to find out where

2   his error was, all right. And so he went back to look, and,

3   Oh, my gosh, it says "may." So he thinks it's optional,

4   right.

5   And so I don't think that -- if you don't know --

6   you would have to make a finding that he deliberately -- that

7   he deliberately, in 2018, sat at his computer and said, "I

8   can filter this, but I'm not going to."

9   And despite the fact that that might be the wrong

10   thing to do, there's just no indication that Corporal Mills

11   did that.

12   Maybe it's a training issue. Maybe whatever. But

13   there's no -- there's no indication that he was trying to

14   do -- to pull one over on the judge, purposefully or

15   otherwise.

16   THE COURT: But I don't think that it only has to

17   be intentional. If you have an officer who -- I mean, we can

18   probably find a really basic example, you know. Not trained

19   right as to recognize marijuana. Thinks the smell of

20   strawberry ice cream is probable cause for marijuana. And he

21   testifies credibly like "I was taught that marijuana smells

22   like strawberries."

23   And never bothered to tell me why or how that

24   training is -- he just went with that. When pressed about

25   why, he couldn't come up with anything; right? And he puts

1 that in a warrant; right? I mean, it's an error. It's a

2 good faith error, but it's beyond the pale of recklessness.

3   MR. MORGAN: I don't think it's reckless, Your

4 Honor. I think it's just ignorance on that one point on

5 filtering or not, because he said that the training said

6 "may." He took "may" literally. And unfortunately he did.

7   But reckless disregard in that context, you have to

8 show that the affiant personally recognized that risk of

9 making a misleading affidavit and that he recklessly

10 disregarded -- sorry. What the affiant knew or should have

11 known does not matter if he did not, in fact, know it. And

12 he didn't know that it was required. He thought it was

13 optional. That's the bottom -- that is not reckless. That's

14 just a mistake. That can't be the basis for *Franks*.

15   THE COURT: Okay. Well, I certainly understand the

16 Government's argument. I just got to think about it.

17   MR. MORGAN: Last point on that is for the stuff

18 that was omitted, a lot of it, as we discussed, we added back

19 in: It increases the probable cause; it doesn't distract.

20   THE COURT: I understand the argument. I do. I

21 get it. I just have to think about it.

22   All right. Thank you, Mr. Morgan.

23   Let's see if Mr. Robbins has anything for me.

24   MR. ROBBINS: To the extent that you think you need

25 it, Your Honor.

1   THE COURT: Well, the Government's point is a pass

2 is a pass. It's uncontroverted expert testimony.

3   MR. ROBBINS: And there's the issue, Your Honor.

4 Because we do have to start at *Franks* first.

5   THE COURT: Yeah.

6   MR. ROBBINS: And that is: What did this affiant

7 present to the Government? And while there is some case law

8 that says, you know, was the affiant just foolhardy or

9 whatever.

10   But there's that reckless language in *Franks*. And

11 if -- particularly if the affiant is put in a position of not

12 being able to make a credible -- not being able to make a

13 meaningful representation to the magistrate judge, to not get

14 the information in.

15   So, if you send in an affiant who just doesn't have

16 the knowledge base to establish yea or nay whether there's

17 probable cause, you can't, then, try to hide behind, Well,

18 you know, it's only what the affiant really knew.

19   The law throughout talks about whether things are

20 being used as a shield or a sword. And there are many

21 occasions where there's a shield put in place if it's a mere

22 good faith problem where it's a minor error that does not

23 impact what's been done.

24   THE COURT: So what's the material --

25   MR. ROBBINS: The material problem here is that our

1   affiant didn't know what he had done, or why it should have

2   probable cause, or what he had. He had plugged things into a

3   spreadsheet and brought back what the spreadsheet said as if

4   it was his own work, and that he knew what was going on. He

5   was telling the judge that he had probable cause when he

6   didn't know whether he did or he didn't.

7   The Government wants to say, Well, it's okay

8   because our expert can go back and look at the files behind

9   what the affiant presented.

10   THE COURT: And say in the end he got it right.

11   MR. ROBBINS: In the end he got it right. That's

12 like saying, Well, it's okay the dude said he smelled

13 marijuana when he thought he smelled strawberries, because

14 when we searched the guy.

15   THE COURT: He had marijuana.

16   MR. ROBBINS: He had marijuana, so life is good.

17   But remember, this isn't in place necessarily to

18 protect the guy with the marijuana. This is the place to

19 protect society from bad searches. So, *Franks* is the same.

20   If the system is set up so that it's putting an

21 uninformed affiant if front of a magistrate judge with

22 inadequate information to establish probable cause as to

23 specific elements, then *Franks* says: Whatever it was, it was

24 based on the things that were inadequately built. You pull

25 them out of the affidavit.

1   And as the Court's noted, we're not making any

2 complaint about the internet IP address being associated with

3 a particular physical address or anything else. What we're

4 saying is there was no probable cause established by this

5 affiant to say that that IP address was the requester for

6 blocks associated with certain manifests.

7   THE COURT: Well, what do I make of Dr. Levine's

8 testimony, that even though he didn't filter, it still would

9 have been a pass because -- and the way that -- this is my

10 words -- but the driver of the pass was an individual run

11 that really kind of, you know, washed out the fails.

12   MR. MORGAN: Well, I wouldn't use the Government's

13 pizza. I would use two glasses of milk. One of them is sour

14 and the other one is good. And I pour them both into a

15 pitcher, and now we decide: Is that pitcher of milk good or

16 bad?

17   The problem is that there may have been good milk

18 in there at some point. But if the person delivering the

19 milk to the table is bringing the pitcher that's had both of

20 those glasses poured into it, they don't know what they're

21 bringing you.

22   THE COURT: Is there a difference between what may

23 be, you know, a mathematical pass here and what is sufficient

24 for probable cause? I know this sounds like a pretty tough

25 question.

1   MR. ROBBINS: It's like the critical question. And

2 it's clearly somewhere in the depths of the back of Corporal

3 Mills's training. And that is the problem of -- Dr. Levine

4 is satisfied. He's a mathematician. He's satisfied.

5   If I get one good run -- he gets to go through and

6 filter and find his good run. If I get one good run that

7 meets all the parameters that I need for my test, then I can

8 say with a fair level of certainty that the IP address

9 associated with that run requested the blocks associated with

10 that manifest. And I can say that with a fair degree of

11 certainty.

12   That's a different question as to whether or not an

13 affidavit who (sic) has gone before a magistrate judge has

14 presented that judge with enough information for that judge

15 to make an independent decision.

16   THE COURT: So, Mr. Morgan's point is: Okay, put

17 it all in there, right. So, if I credit what you're saying,

18 then it's a material omission. Put it all in there and

19 decide if that's sufficient probable cause.

20   MR. ROBBINS: I think if it's a material omission,

21 you remove the parts of the warrant that are associated with

22 that material omission.

23   THE COURT: No. I think you put it back in and

24 decide if it's probable cause. That's my understanding of

25 the law. Now, --

1   MR. ROBBINS: But the other problem is I don't know
2 how you put it all back in, because you don't know what the
3 then-Trooper, now Corporal, Mills would have done had he
4 known what he was supposed to do. It's impossible to figure
5 that out. You can't put it back in.
6   And, frankly, I don't -- and Corporal Mills is
7 taking a little bit of a beating here.
8   THE COURT: Nice guy.
9   MR. ROBBINS: But it's not entirely his fault.
10 It's a system set up to put witnesses like him in the
11 position where he's finding himself.
12   There are witnesses who are not fully trained.
13 They don't understand. They don't know the equations behind
14 it. And a lot of it is set to hide the gears of the
15 machinery, shall we say, because we don't want them reviewed.
16 We don't want the judicial supervision. We want to put
17 someone in who can say something pretty simple, pretty
18 straightforward, and it evades careful looking.
19   That's sounding a lot like reckless. Maybe not on
20 the part of Corporal Mills, except for the extent that he's
21 participating in it. But it's reckless.
22   And when you look at the action of his supervising
23 sergeant, it kind of reaffirms that. "Take that out of
24 there. The judge is going to ask questions."
25   I think the Court understands our position on it.

1 If there's anything else I can address, I'd be delighted to,

2 but I know that we pushed you pretty far this afternoon.

3   THE COURT: Yeah. Long, long time ago a judge

4 said, "Why are you putting me in the middle of this?"

5 Everybody laughed. Now I get it.

6   It's definitely, you know, an impulse to say: Why

7 are you putting me in this middle of this? This is a very

8 hard one.

9   Again, this case is a series of hard ones. So I'm

10 going to take it under advisement. I will let you all know

11 when I'm ready to rule. I'll probably just call you back in

12 here and rule.

13   Okay. Anything else that either side wishes to

14 discuss? Bring to me?

15   Really appreciate your time and your good spirit

16 about it.

17   MR. ROBBINS: Thank you, Your Honor.

18   MR. MORGAN: Thank you, Your Honor.

19   THE COURT: All right. Thank you, all. Have a

20 good weekend.

21   THE CLERK: All rise. This honorable court stands

22 adjourned.

23   (Court adjourned at 5:22 p.m.)

24

25

UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND

CERTIFICATE OF OFFICIAL REPORTER

I, Kathy Cortopassi, RDR, CRR, CRC, Federal Official Court Reporter, in and for the United States District Court for the District of Maryland, do hereby certify that pursuant to Section 753, Title 28, United States Code, that the foregoing is a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.

Dated this the 15th day of September 2023.

/s/ Kathy Cortopassi
Kathy Cortopassi, RDR, CRR, CRC
U.S. Official Court Reporter